SECTION LT
LIGHTING SYSTEM

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PRECAUTIONS

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Precautions for Supplemental Restraint System (SRS) “AIR BAG” and “SEAT BELT PRE-TENSIONER”

AKS00FD1

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SRS and SB section of this Service Manual.

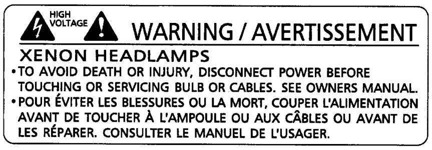
WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SRS section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

General Precautions for Service Operations

AKS00FCZ

- Never work with wet hands.
- Xenon headlamp includes high voltage generating part. Be sure to disconnect battery negative cable (negative terminal) or power fuse before removing, installing, or touching the xenon headlamp (including lamp bulb).
- Turn the lighting switch OFF before disconnecting and connecting the connector.
- When turning the xenon headlamp on and while it is illuminated, never touch the harness, bulb, and socket of the headlamp.
- When checking the headlamp on/off operation, check it on vehicle and with the power connected to the vehicle-side connector.



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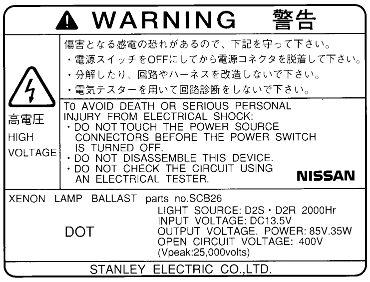
- Do not touch the headlamp bulb glass surface with bare hands or allow oil or grease to get on it. Do not touch the headlamp bulb just after the headlamp is turned off, because it is very hot.
- Install the xenon headlamp bulb socket correctly. If it is installed improperly, high-voltage leak or corona discharge may occur that can melt the bulb, connector, and housing. Do not illuminate the xenon headlamp bulb out of the headlamp housing. Doing so can cause fire and harm your eyes.
- When the bulb has burned out, wrap it in a thick vinyl bag and discard. Do not break the bulb.
- Leaving the bulb removed from the headlamp housing for a long period of time can deteriorate the performance of the lens and reflector (dirt, clouding). Always prepare a new bulb and have it on hand when replacing the bulb.



EL-3422D

- When adjusting the headlamp aiming, turn the aiming adjustment screw only in the tightening direction. (If it is necessary to loosen the screw, first fully loosen the screw, and then turn it in the tightening direction.)
- Do not use organic solvent (paint thinner or gasoline) to clean lamps and to remove old sealant.

HEADLAMP - DAYTIME LIGHT SYSTEM -

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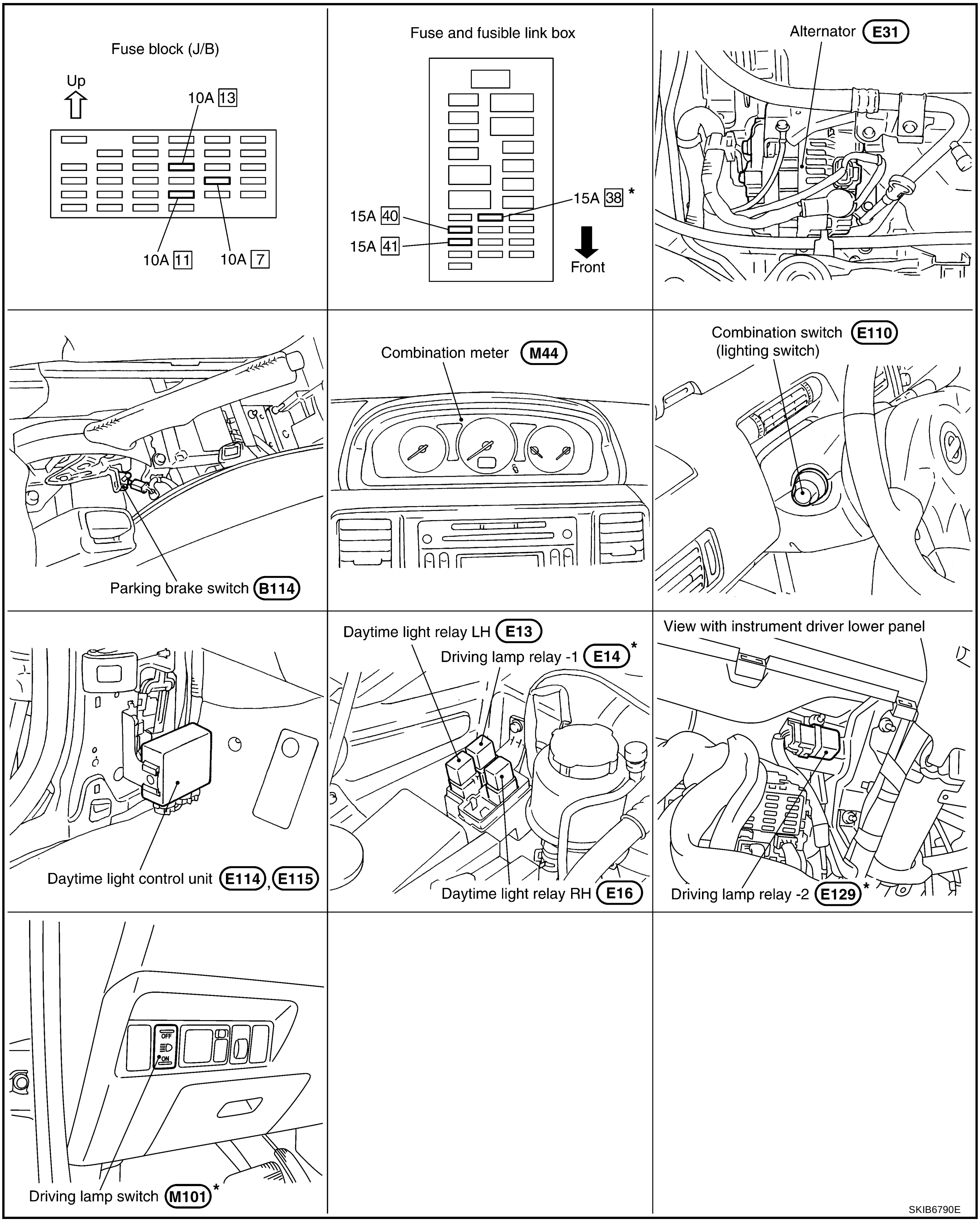
Component Parts and Harness Connector Location

AKS00BPX



*: With driving lamp

System Description

AKS00BPJ

DESCRIPTION

- Daytime light system is a system that turns on HIGH beam as dimmer blinking automatically while driving with lighting switch OFF or 1ST position (including temporary stop at an intersection).
- HIGH beam dimmer blinks automatically reducing the amount of light when starting engine and taking off the parking brake.
- Daytime light system does not start unless the parking brake is turned off (drive theater mode).
- Daytime light system is not released by putting on the parking brake when making a stop at an intersection.
- Put on the parking brake, stop the engine, and restart the engine to select drive theater mode.
- Daytime light system stops when shifting lighting switch to the 2ND or PASS position.
- Daytime light control unit performs dimmer blinking, opening the circuit that connects bilateral HIGH beams in series.

OUTLINE

Power is supplied at all times

- through 15A fuse (No. 40, located in fuse and fusible link box)
- to daytime light control unit terminal 3
- to combination switch (lighting switch) terminal 8 and
- to daytime light relay LH terminal 5
- through 15A fuse (No. 41, located in fuse and fusible link box)
- to daytime light control unit terminal 2
- to combination switch (lighting switch) terminal 5 and
- to daytime light relay RH terminal 5.

When the ignition switch is ON or START position, power is supplied

- through 10A fuse [No.13, located in fuse block (J/B)]
- to daytime light control unit terminal 12
- through 10A fuse [No.11, located in fuse block (J/B)]
- to combination meter (charge) terminal 2.

When the ignition switch is START position, power is supplied

- through 10A fuse [No.7, located in fuse block (J/B)]
- to daytime light control unit terminal 1.

Ground is supplied

- to daytime light control unit terminal 9
- to headlamp RH terminal 2
- to daytime light relay LH terminal 2
- to daytime light relay RH terminal 2 and
- through grounds E24 and E50
- to combination meter (HIGH beam indicator) terminal 19
- through grounds M27 and M70.

DAYTIME LIGHT OPERATION

With the engine running, the lighting switch is OFF or 1ST position and parking brake released, the daytime light control unit controls internal relay. When internal relay, power is supplied

- through daytime light control unit terminal 6
- to headlamp LH terminal 1
- through headlamp LH terminal 2
- to daytime light control unit terminal 7
- through daytime light control unit terminal 8
- to headlamp RH terminal 1.

Ground is supplied

- to headlamp RH terminal 2
- through grounds E24 and E50.

With power and grounds supplied, the daytime light illuminate. The HIGH beam headlamps are now wired in series and illuminate at a reduce intensity.

HEADLAMP OPERATION (DAYTIME LIGHT CANCEL OPERATION)

HEADLAMP RH

When the combination switch (lighting switch) is turned to the 2ND position and placed in LOW position, power is supplied

- from combination switch (lighting switch) terminal 7
- to headlamp RH terminal 3.

When the combination switch (lighting switch) is turned to the 2ND position and placed in HIGH or PASS position, power is supplied

- from combination switch (lighting switch) terminal 6
- to daytime light relay RH terminal 1
- through daytime light relay RH terminal 3
- to headlamp RH terminal 1.

HEADLAMP LH

When the combination switch (lighting switch) is turned to the 2ND position and placed in LOW position, power is supplied

- from combination switch (lighting switch) terminal 10
- to daytime light relay LH terminal 1
- through daytime light relay LH terminal 3
- to headlamp LH terminal 3.

When the combination switch (lighting switch) is turned to the 2ND position and placed in HIGH or PASS position, power is supplied

- from combination switch (lighting switch) terminal 9
- to daytime light control unit terminal 5
- through daytime light control unit terminal 6
- to headlamp LH terminal 1.

At the same time, power is supplied

- from combination switch (lighting switch) terminal 9
- to combination meter (HIGH beam indicator) terminal 20, and then indicator illuminates.

When the combination switch is shifted to HIGH or PASS, daytime light system is released after the signal is sent to the daytime light control unit terminal 5.
Also, when the combination switch is shifted to LOW, daytime light system is released after the signal is sent to the daytime control unit terminal 4.

DRIVING LAMP OPERATION

To illuminate the driving lamp, push the driving lamp switch when the lighting switch is turned to the 2ND position and placed in HIGH BEAM position or PASSING position, power is supplied

- through combination switch (lighting switch) terminal 9
- to combination meter (HIGH beam indicator) terminal 20
- to driving lamp relay-1 terminal 1
- to driving lamp switch terminal 7
- to driving lamp relay-2 terminal 5 and
- to daytime light control unit terminal 5
- through daytime light control unit terminal 6
- to headlamp LH terminal 1
- through combination switch (lighting switch) terminal 6
- to daytime light relay RH terminal 1

- through daytime light relay RH terminal 3
- to headlamp RH terminal 1,
- through driving lamp relay-2 terminal 3
- to driving lamp switch terminal 6,
- through driving lamp relay-1 terminal 5
- to driving lamp LH and RH terminals 2.

Ground is supplied

- to driving lamp relay-1 terminal 2
- through driving lamp relay-2 terminal 7
- through driving lamp relay-2 terminal 6
- through grounds E24 and E50,
- to driving lamp switch terminal 4
- through driving lamp relay-2 terminal 1
- through driving lamp relay-2 terminal 2
- through grounds E24 and E50,
- to driving lamp LH terminal 1
- through ground R8,
- to driving lamp RH terminals 1 and 3
- through ground R8,
- to headlamp LH terminal 2
- through daytime light control unit terminal 7
- through daytime light control unit terminal 9
- through grounds E24 and E50,
- to headlamp RH terminal 2
- through grounds E24 and E50,
- to combination meter (HIGH beam indicator) terminal 19
- through grounds M27 and M70.

With power and ground supplied, high beam headlamps, driving lamp and the HIGH BEAM indicator illuminate.

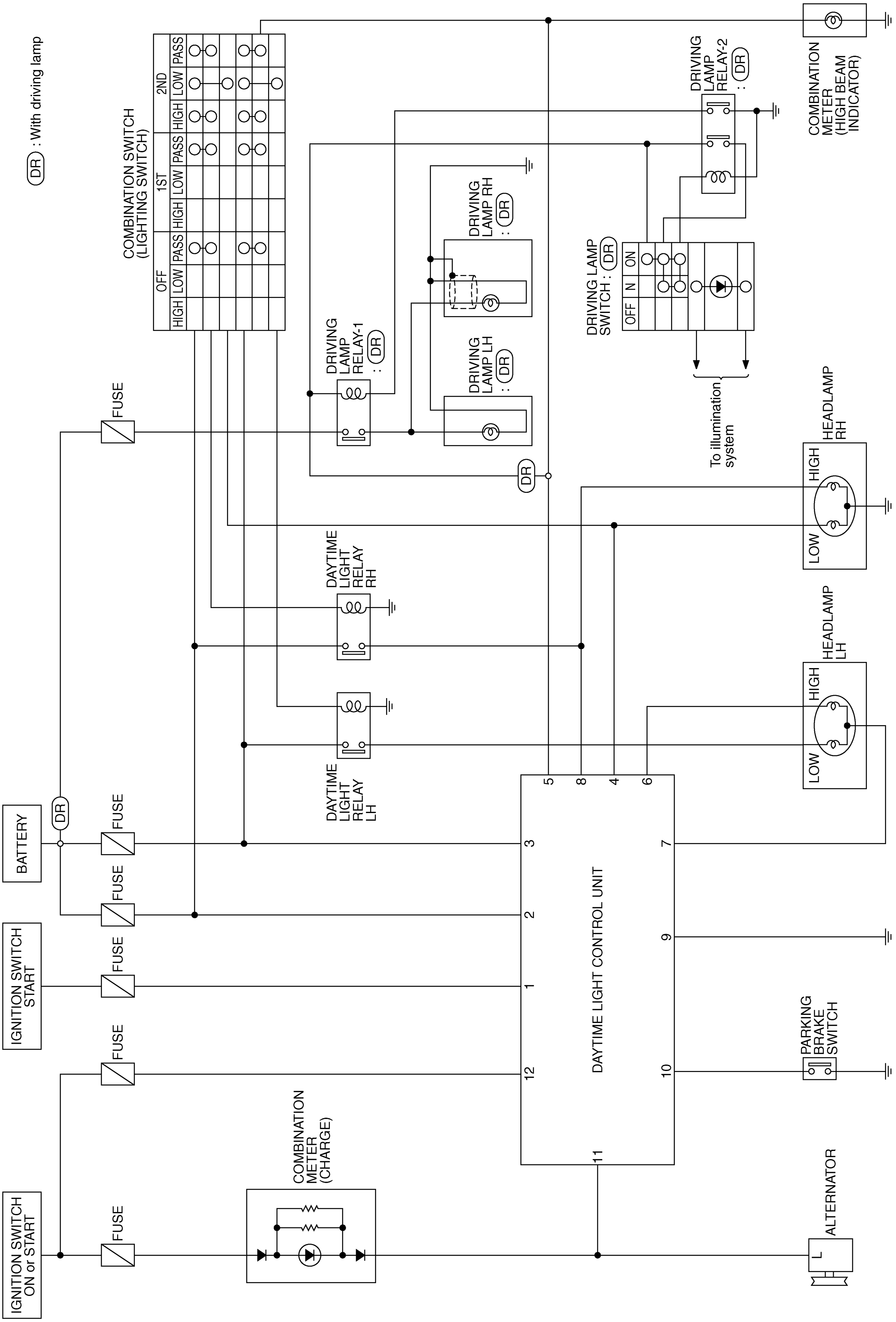
OPERATION TABLE

Engine		Engine stopped									Engine running								
Lighting switch		OFF			1ST			2ND			OFF			1ST			2ND		
		Hi	Lo	P	Hi	Lo	P	Hi	Lo	P	Hi	Lo	P	Hi	Lo	P	Hi	Lo	P
Headlamp	HIGH beam	–	–	×	–	–	×	×	–	×	●*	●*	×	●*	●*	×	×	–	×
	LOW beam	–	–	–	–	–	–	–	×	–	–	–	–	–	–	–	–	×	–
Parking (clearance), side marker and tail lamp		–	–	–	×	×	×	×	×	×	–	–	–	×	×	×	×	×	×
License and instrument illumination lamp		–	–	–	×	×	×	×	×	×	–	–	–	×	×	×	×	×	×

- Hi: “HIGH beam” position
- Lo: “LOW beam” position
- P: “FLASH TO PASS” position
- ×: Lamp “ON”
- –: Lamp “OFF”
- ●: Lamp dims. (Added functions)
- *: When starting the engine with the parking brake released, the daytime light will come ON.
  When starting the engine with the parking brake pulled, the daytime light will not come ON.

Schematic

AKS00BPK



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Wiring Diagram — H/LAMP —

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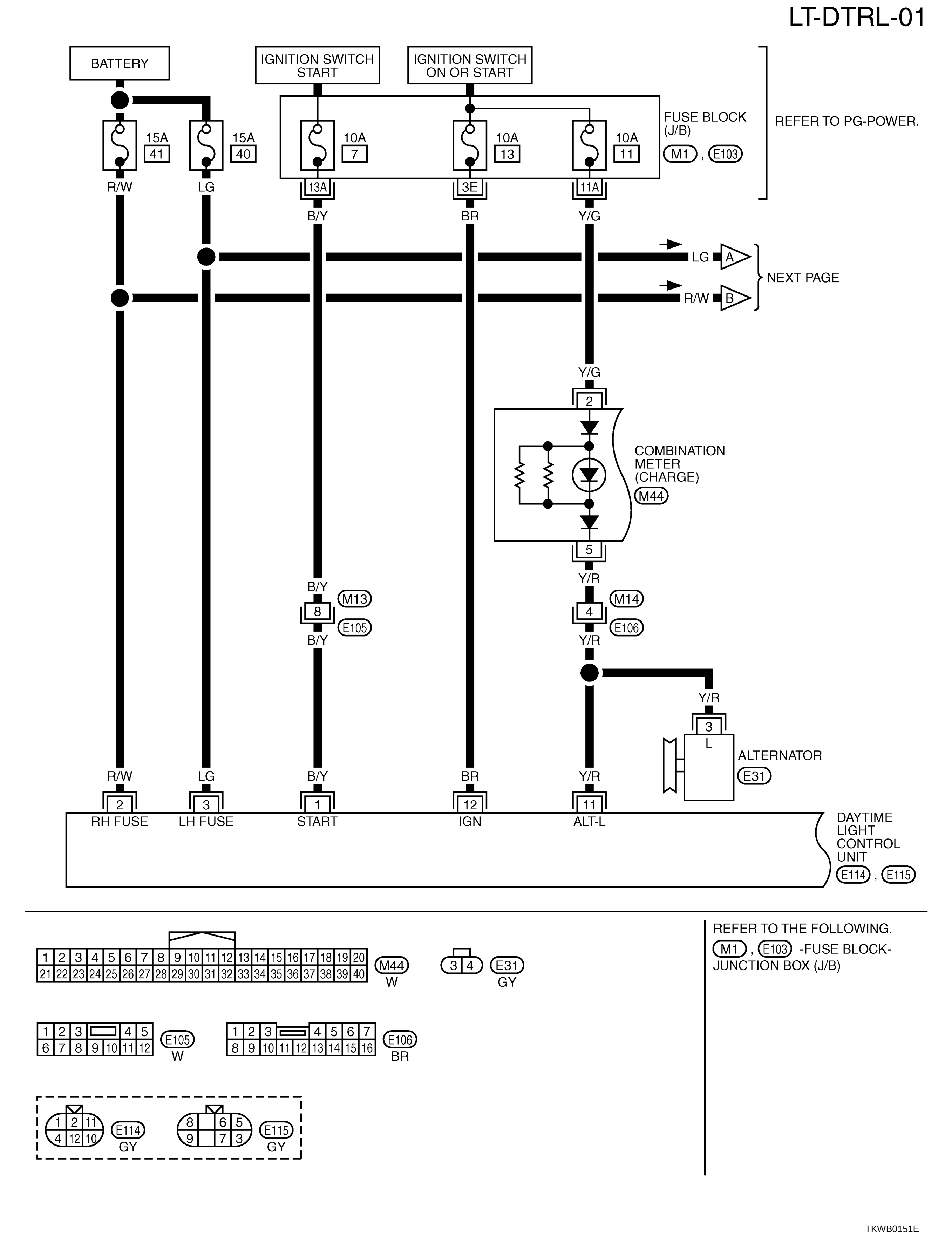
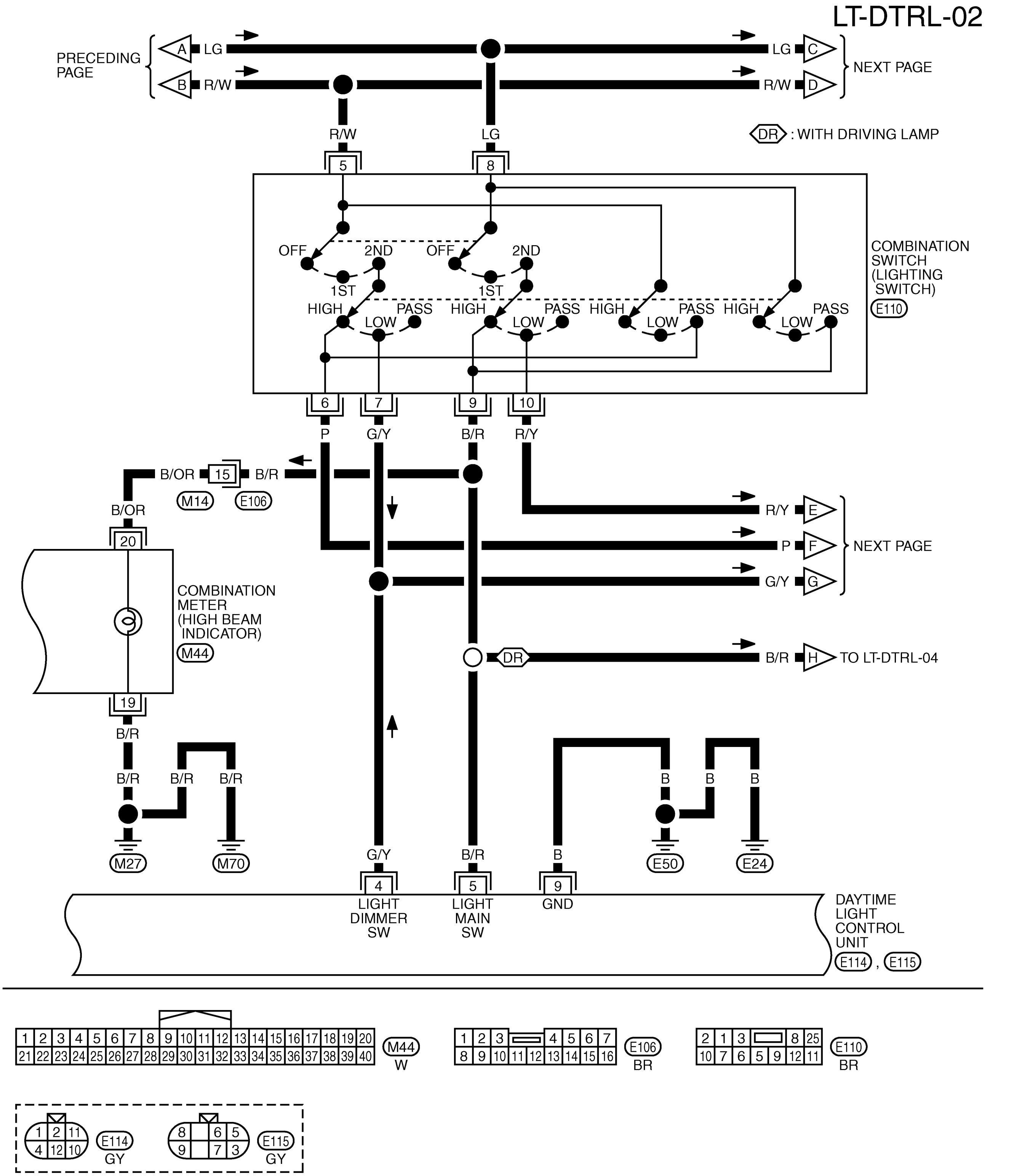
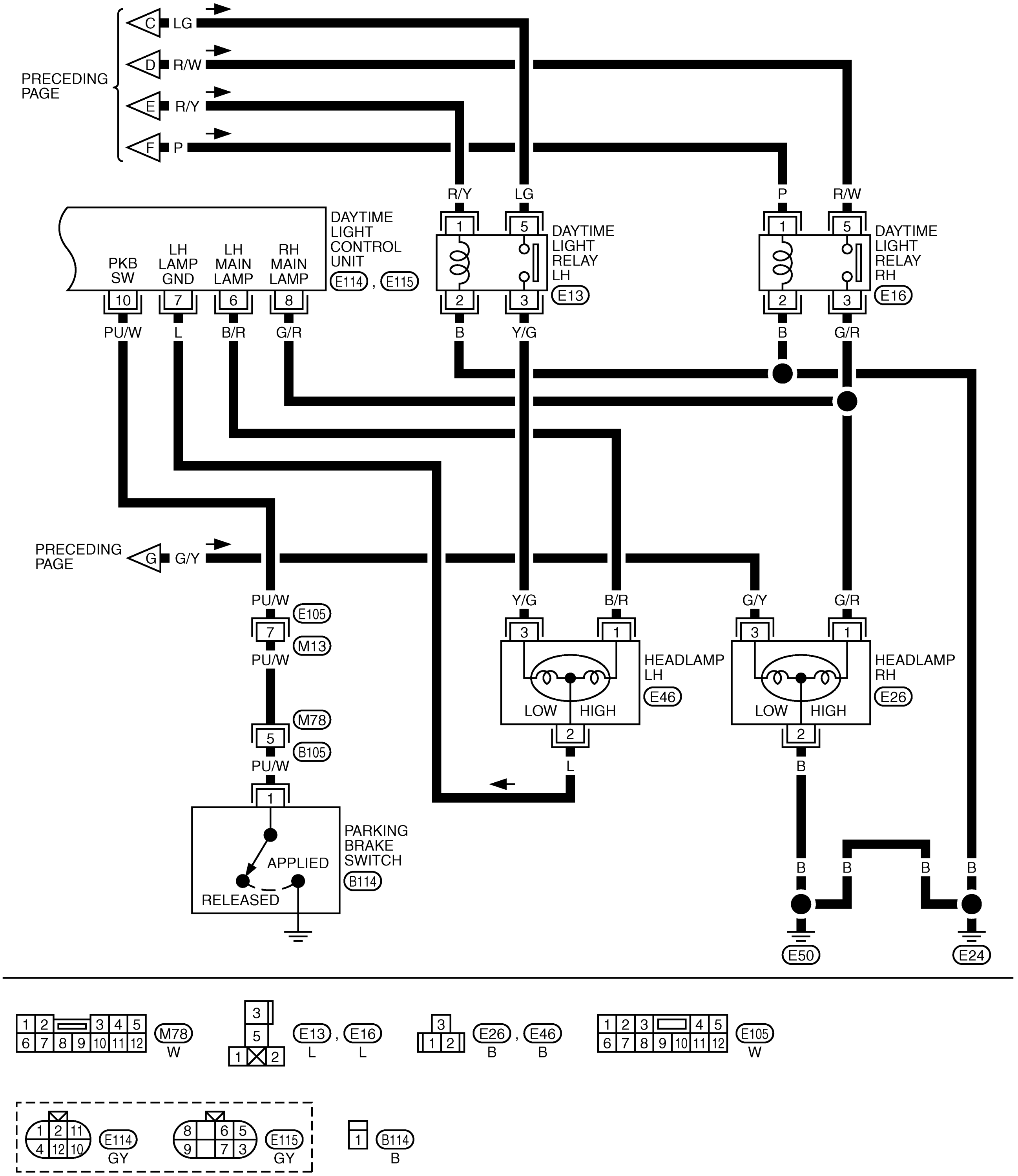



LT-DTRL-02
PRECEDING PAGE
A LG
B R/W
LG C
R/W D
NEXT PAGE
R/W
LG
DR : WITH DRIVING LAMP
5
8
OFF 2ND OFF 2ND
1ST 1ST
HIGH PASS HIGH PASS HIGH PASS HIGH PASS
LOW LOW LOW LOW
COMBINATION SWITCH (LIGHTING SWITCH)
E110
6 7 9 10
P G/Y B/R R/Y
B/OR 15 B/R
M14 E106
B/OR
20
COMBINATION METER (HIGH BEAM INDICATOR)
M44
19
B/R
R/Y E
P F
G/Y G
NEXT PAGE
DR
B/R H TO LT-DTRL-04
B/R B/R B/R
B B B
M27 M70 E50 E24
G/Y B/R B
4 5 9
LIGHT DIMMER SW
LIGHT MAIN SW
GND
DAYTIME LIGHT CONTROL UNIT
E114 , E115
M44 W
E106 BR
E110 BR
E114 GY
E115 GY
TKWB2248E

LT-DTRL-03



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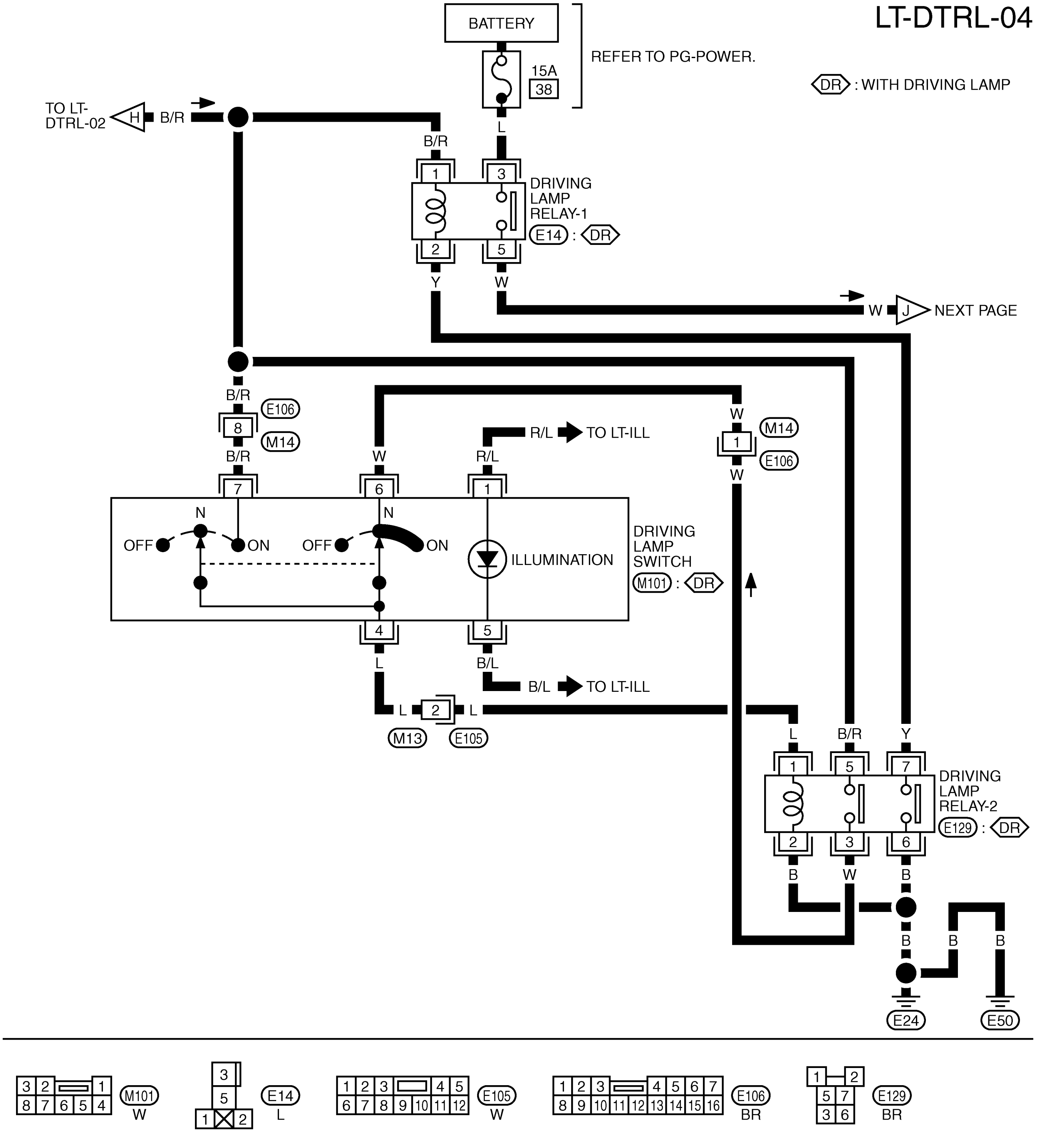
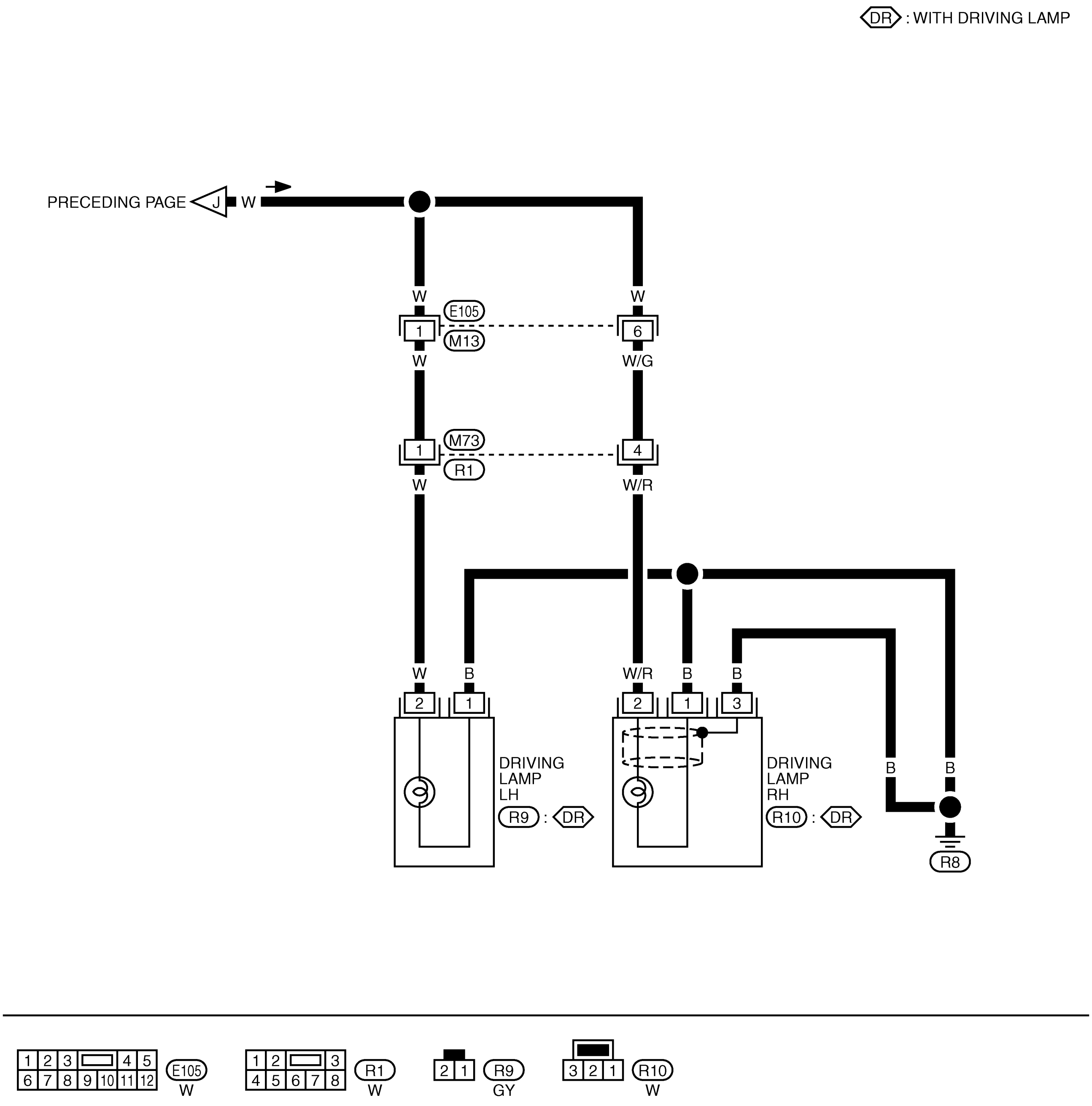

LT-DTRL-04
BATTERY
REFER TO PG-POWER.
15A
38
DR : WITH DRIVING LAMP
TO LT-DTRL-02
H
B/R
L
DRIVING LAMP RELAY-1
E14 : DR
Y
W
W
J
NEXT PAGE
E106
M14
R/L
TO LT-ILL
DRIVING LAMP SWITCH
M101 : DR
OFF
N
ON
ILLUMINATION
B/L
TO LT-ILL
M13
E105
DRIVING LAMP RELAY-2
E129 : DR
B
E24
E50
M101
W
E14
L
E105
W
E106
BR
E129
BR
TKWB2250E

LT-DTRL-05



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Terminals and Reference Value for Daytime Light Control Unit

AKS00BPY

Terminal No.	Wire color	Signal name	Operation or condition		Reference value
1	B/Y	Engine start signal	Ignition switch	START	Battery voltage
				ON, ACC or OFF	Approx. 0V
2	R/W	Power source for headlamp RH	—		Battery voltage
3	LG	Power source for headlamp LH	—		Battery voltage
4	G/Y	Headlamp LOW beam signal	Lighting switch	LOW	Approx. 12V
				Except LOW	Approx. 0V
5	B/R	Headlamp HIGH beam or PASS signal	Lighting switch	HIGH or PASS	Approx. 12V
				Except above	Approx. 0V
6	B/R	Headlamp LH HIGH	Drive theater mode		Approx. 0V
			Lighting switch HIGH, PASS or daytime light operating*		Approx. 12V
7	L	Headlamp LH ground	Daytime light operating*		Approx. 6V
			Lighting switch LOW and HIGH position		Approx. 0V
8	G/R	Headlamp RH HIGH	Daytime light operating*		Approx. 6V
			Lighting switch LOW position		Approx. 0V
			Lighting switch HIGH position		Approx. 12V
9	B	Ground for daytime light control unit	—		Approx. 0V
10	PU/W	Parking brake switch signal	Brake switch (Ignition switch is ON)	ON	Approx. 0V
				Released	Approx. 12V
11	Y/R	Alternator “L” terminal	Engine	Running	Approx. 12V
				Stopped	Approx. 0V
12	BR	Power source for daytime light control unit	Ignition switch	ON or START	Battery voltage
				Except above	Approx. 0V

* Daytime light operating: Lighting switch in OFF position with engine running and parking brake is released.

Trouble Diagnoses (Daytime Light System)

AKS00BQ5

Inoperative System (or lamp): Theater mode	Daytime light	LOW beam RH	LOW beam LH	HIGH beam RH	HIGH beam LH	High beam indicator	Possible cause	Repair order
	×						• 10A fuse • Harness and connector • parking brake switch • Daytime light control unit	• Check 10A fuse [No.11, located in fuse block (J/B)]. • Check harness between 15A fuse (No.41, located in fuse and fusible link box) and daytime light control unit terminal 2. • Check harness between 15A fuse (No.40, located in fuse and fusible link box) and daytime light control unit terminal 3. • Check harness between daytime light control unit terminal 8 and headlamp RH terminal 1. • Check harness between daytime light control unit terminal 11 and alternator terminal 3. • Check harness between 10A fuse [No.13, located in fuse block (J/B)] and daytime light control unit terminal 12. • Check parking brake switch. • Check daytime light control unit. Refer to LT-14, "Terminals and Reference Value for Daytime Light Control Unit" .
	×				×		• Bulb • Harness and connector • Daytime light control unit	• Check headlamp bulb LH (HIGH). • Check continuity between daytime light control unit terminal 6 and headlamp LH terminal 1. • Check daytime light control unit. Refer to LT-14, "Terminals and Reference Value for Daytime Light Control Unit"
	×			×			• Bulb	• Check headlamp bulb RH (HIGH).
	×		×		×		• Grounds E24 and E50 • Harness and connector • Daytime light control unit	• Check grounds E24 and E50. • Check continuity between daytime light control unit terminal 7 and headlamp LH terminal 2. • Check continuity between daytime light control unit terminal 9 and ground. • Check daytime light control unit. Refer to LT-14, "Terminals and Reference Value for Daytime Light Control Unit" .
	×		×		×	×	• 15A fuse • Harness and connector	• Check 15A fuse (No.40, located in fuse and fusible link box). • Check harness between 15A fuse (No.40, located in fuse and fusible link box) and daytime light control unit terminal 3.
	×	×		×			• 15A fuse • Harness and connector	• Check 15A fuse (No.41, located in fuse and fusible link box). • Check harness between 15A fuse (No.41, located in fuse and fusible link box) and daytime light control unit terminal 2.
	×*	×	●**	×			• Harness and connector	• Check continuity between headlamp RH terminal 2 and ground.

Inoperative System (or lamp)							Possible cause	Repair order
Theater mode	Daytime light	LOW beam		HIGH beam		High beam indicator		
		RH	LH	RH	LH			
×							● Parking brake switch ● Harness and connector ● Daytime light control unit	● Check parking brake switch. ● Check continuity between daytime light control unit terminal 10 and parking brake switch terminal 1. ● Check daytime light control unit. Refer to LT-14, "Terminals and Reference Value for Daytime Light Control Unit" .
			×				● Bulb ● Combination switch ● Harness and connector ● Daytime light relay LH ● Daytime light control unit	● Check headlamp bulb LH (LOW). ● Check combination switch. Refer to LT-49, "Switch Circuit Inspection" . ● Check continuity between combination switch terminal 10 and daytime light relay LH terminal 1. ● Check continuity between daytime light relay LH terminal 2 and ground. ● Check continuity between combination switch terminal 7 and daytime light control unit terminal 4. ● Check daytime light relay LH. Refer to LT-17, "Check Daytime Light Relay" . ● Check daytime light control unit. Refer to LT-14, "Terminals and Reference Value for Daytime Light Control Unit" .
		×					● Bulb	● Check headlamp bulb RH (LOW).
					×		● Harness and connector ● Daytime light control unit	● Check continuity between combination switch terminal 9 and daytime light control unit terminal 5. ● Check daytime light control unit. Refer to LT-14, "Terminals and Reference Value for Daytime Light Control Unit" .
				×			● Combination switch ● Harness and connector ● Daytime light relay RH	● Check voltage between combination switch terminal 6 and ground. ● Check combination switch. Refer to LT-49, "Switch Circuit Inspection" . ● Check continuity between combination switch terminal 6 and daytime light relay RH terminal 1. ● Check continuity between daytime light relay RH terminal 2 and ground. ● Check daytime light relay RH. Refer to LT-17, "Check Daytime Light Relay" .
			●**				● Combination switch ● Harness and connector	● Check voltage between combination switch terminal 7 and ground. ● Check combination switch. Refer to LT-49, "Switch Circuit Inspection" . ● Check continuity between combination switch terminal 7 and headlamp RH terminal 3.
			●**	×			● Combination switch ● Harness and connector	● Check voltage between combination switch terminal 5 and ground. ● Check combination switch. Refer to LT-49, "Switch Circuit Inspection" . ● Check continuity between 15A fuse (No.41, located in fuse and fusible link box) and combination switch terminal 5.

Inoperative System (or lamp)							Possible cause	Repair order
Theater mode	Daytime light	LOW beam		HIGH beam		High beam indicator		
		RH	LH	RH	LH			
					×	×	● Combination switch ● Harness and connector	● Check voltage between combination switch terminal 9 and ground. ● Check combination switch. Refer to LT-49, "Switch Circuit Inspection" . ● Check continuity between combination switch terminal 9 and combination meter terminal 20.
			×		×	×	● Combination switch ● Harness and connector	● Check voltage between combination switch terminal 8 and ground. ● Check combination switch. Refer to LT-49, "Switch Circuit Inspection" . ● Check continuity between 15A fuse (No.40, located in fuse and fusible link box) and combination switch terminal 8.

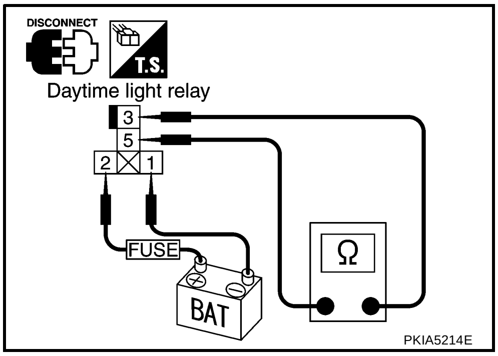
*: Chattering noise can be heard from daytime light control unit when daytime light system is ON.
**: ● shows a condition that a lamp is lighted quite dimly.

Check Daytime Light Relay

AKS00C3G

1. Apply battery voltage to between terminal 1 and 2.
2. Check continuity between terminal 3 and 5.

3 – 5 :Continuity should exist.



Trouble Diagnoses (Driving Lamp)

AKS00FN8

Symptom	Possible cause	Repair order
Driving lamp does not operate (both side), but high beam operates.	1. 15A fuse 2. Open in driving lamp switch 3. Driving lamp switch circuit 4. Driving lamp relay-2 5. Open in driving lamp relay-2 circuit 6. Grounds E24 and E50 7. Driving lamp relay-1 8. Open in driving lamp relay-1 circuit 9. Open driving lamp circuit 10.Ground R8 11.Bulb	1. Check 15A fuse (No. 38, located in fuse and fusible link box). Check voltage between driving lamp relay-1 terminal 3 and ground. 2. Check continuity between lighting switch terminal 9 and driving lamp switch terminal 7 for an open circuit. 3. Check driving lamp switch. 4. Check driving lamp relay-2. 5. Check continuity between driving lamp switch terminal 4 and driving lamp relay-2 terminal 1 for an open circuit. Check continuity between driving lamp switch terminal 6 and driving lamp relay-2 terminal 3 for an open circuit. Check continuity between lighting switch terminal 9 and driving lamp relay-2 terminal 5 for an open circuit. Check continuity between driving lamp relay-1 terminal 2 and driving lamp relay-2 terminal 7 for an open circuit. 6. Check grounds E24 and E50. 7. Check driving lamp relay-1. 8. Check continuity between lighting switch terminal 9 and driving lamp relay-1 terminal 1 for an open circuit. 9. Check continuity between driving lamp relay-1 terminal 5 and driving lamp (LH and RH) terminal 2 for an open circuit. 10.Check ground R8. 11.Check bulbs.
Driving lamp does not operate (one side), but high beam operates.	1. Bulb 2. Ground R8 3. Open driving lamp circuit	1. Check bulb of lamp which does not illuminate. 2. Check ground R8. 3. Check continuity between driving lamp relay-1 terminal 5 and driving lamp (LH or RH) terminal 2 for an open circuit.

Aiming Adjustment of Headlamp

AKS00FN9

PREPARATION BEFORE ADJUSTING

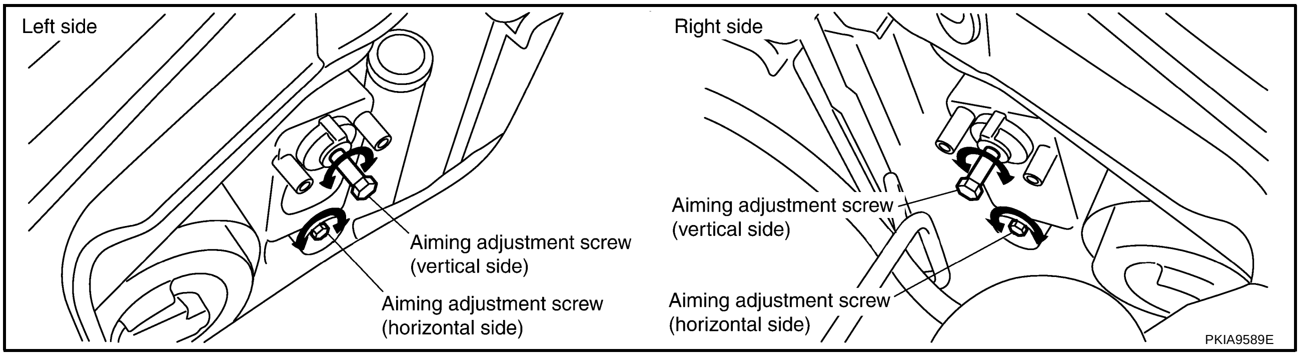
For details, refer to the regulations in your country.
Before performing aiming adjustment, check the following.

- Keep all tires inflated to correct pressures.
- Place vehicle and tester on one and same flat surface.
- See that there is no-load in vehicle (coolant, engine oil filled up to correct level and full fuel tank) other than the driver (or equivalent weight placed in driver's position).

LOW BEAM AND HIGH BEAM

1. Turn headlamp low beam on.
2. Use aiming adjustment screws to perform aiming adjustment.

NOTE:
Vertical side must be adjusted finally, if horizontal side has been adjusted.



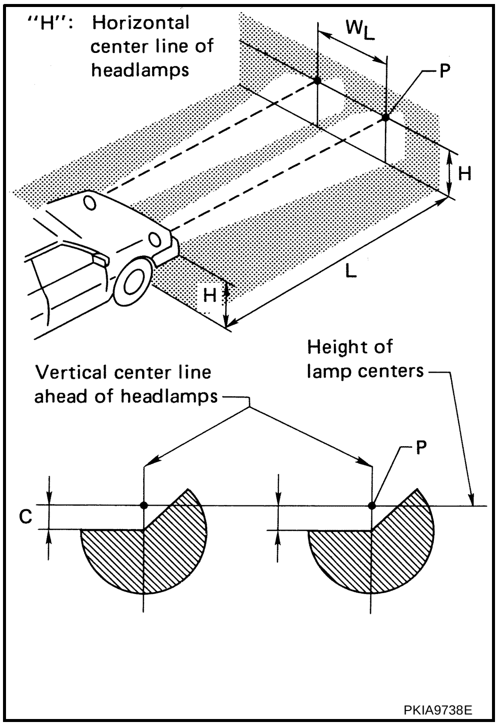
- First tighten aiming adjustment screw all the way and then make adjustment by loosening the screw.

If the vehicle front body has been repaired and/or the headlamp assembly has been replaced, check aiming. Use the aiming chart shown in the figure.

- Adjust headlamps so that main axis of light is parallel to center line of body and is aligned with point P shown in the figure.
- Figure shows headlamp aiming pattern for driving on right side of road; for driving on left side of road, aiming pattern is reversed.
- Dotted lines to point P in the figure show center of headlamp.

"H" : Horizontal center line of headlamps
"WL " : Distance between each headlamp center
"L" : 10,000 mm (393.70 in)
"C" : 135 mm (5.31 in)

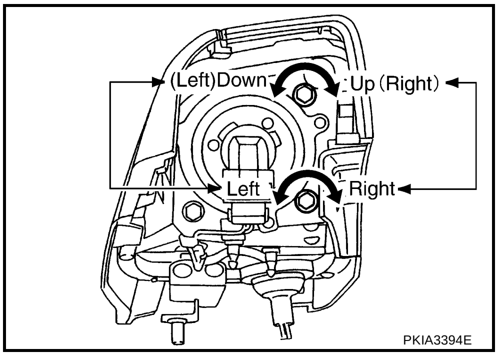
- Basic illuminating area for adjustment should be within the range shown in the figure. Adjust headlamps accordingly.



Aiming Adjustment of Driving Lamp

AKS00FNA

- Turn aiming adjusting screw to adjust.
- For positions of adjusting screws and direction to turn, refer to the figures.
- When adjusting horizontal direction (right and left), turn two adjusting screws to the same direction.



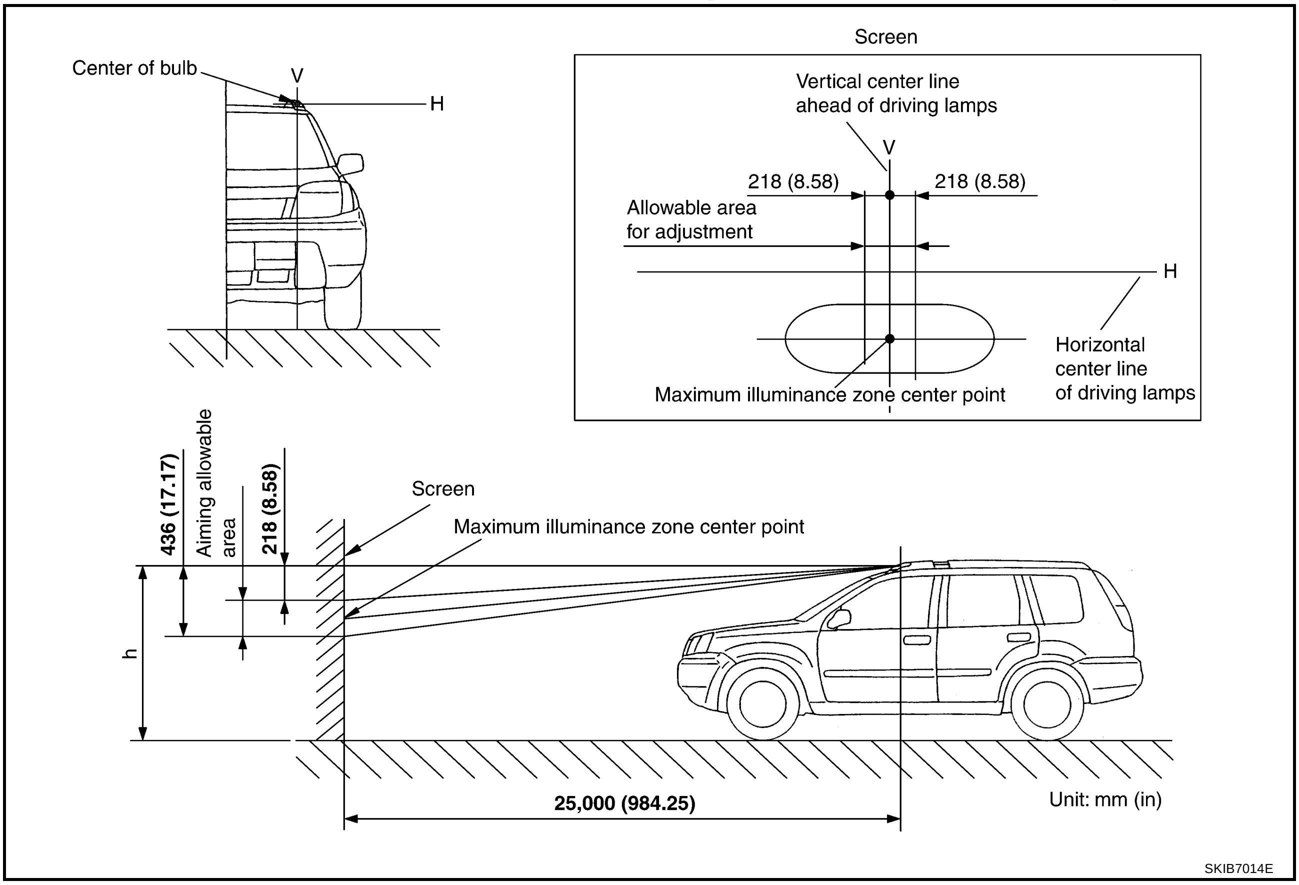
PREPARATION BEFORE ADJUSTING

For Details, Refer To The Regulations In Your Own Country.

Before performing aiming adjustment, check the following.

1. Keep all tires inflated to correct pressures.
2. Place vehicle on flat surface.
3. Set that there is no-load in vehicle other than the driver (or equivalent weight placed in driver's position). Coolant, engine oil filled up to correct level and full fuel tank.

ADJUSTMENT USING AN ADJUSTMENT SCREEN (LIGHT/DARK BORDERLINE)



ADJUSTING

1. Set the distance between the screen and the center of the driving lamp lens as shown in the figure.
2. Turn head lamp switch high and driving lamp switch ON so that front driving lamps turn ON.
3. Adjust driving lamps using adjusting screws make sure of the following.
   - When performing this adjustment, cover the headlamps and the opposite driving lamp, if necessary.
   - Vertical deflection of maximum illuminance point to be adjusted to stand at 218mm (8.58in) below driving lamp height (h).
   - Horizontal deflection of maximum illuminance point to be adjusted to stand within 0 ± 218mm (0 ± 8.58in) against line (V) on screen where a line passing through driving lamp center, parallel to vehicle center line, cross screen.

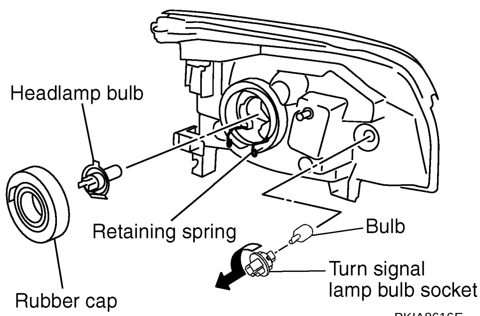
Bulb Replacement

AKS00FNB

HEADLAMP

1. Disconnect headlamp connector.
2. Remove rubber cap.
3. Unlock retaining spring, then remove bulb.
4. Installation is the reverse of removal.

Headlamp (High/Low) : 12V - 60/55W (H4)



PKIA8616E

CAUTION:
- **Do not touch glass of bulb directly by hand. Keep grease and other oily matters away from it.**
- **Do not touch bulb by hand while it is lit or right after being turned off. Burning may result.**
- **When replacing bulb, prepare new bulb first of all. Do not leave bulb out of headlamp housing for a long period, because dust, moisture, or smoke will cause performance lowering (fouling, cloud, etc.) of headlamp reflector and lens.**
- **When bulb is installed, be sure to lock rubber cap to ensure watertightness.**

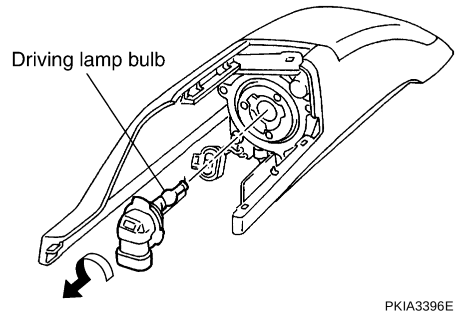
DRIVING LAMP

1. Remove driving lamp. Refer to LT-22, "Removal and Installation of Driving Lamp" in “HEADLAMP”.
2. Disconnect driving lamp connector.
3. Turn bulb socket counterclockwise and unlock it.

Driving lamp : 12 V - 65 W (HIR1)

4. Installation is the reverse order of removal.

CAUTION:
- **Do not touch glass of bulb directly by hand. Keep grease and other oily matters away from it.**
- **Do not touch bulb by hand while it is lit or right after being turned off. Burning may result.**
- **When replacing bulb, prepare new bulb first of all. Do not leave bulb out of driving lamp housing for a long period, because dust, moisture, or smoke will cause performance lowering (fouling, cloud, etc.) of driving lamp reflector and lens.**

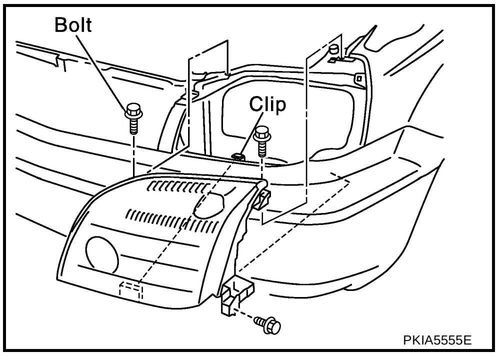


PKIA3396E

Removal and Installation of Headlamp

AKS00FNC

REMOVAL



1. Remove parking lamp. Refer to LT-39, "Removal and Installation of Parking Lamp" .
2. Disconnect headlamp connector and turn signal lamp connector.
3. Remove fender protector. Refer to EI-20, "FENDER PROTECTOR" in “EXTERIOR & INTERIOR (EI)” section.
4. Disconnect front side marker lamp connector and front fog lamp connector (with front fog lamp).
5. Remove front grille. Refer to EI-18, "FRONT GRILLE" in “EXTERIOR & INTERIOR (EI)” section.
6. Remove front bumper. Refer to EI-14, "FRONT BUMPER" in “EXTERIOR & INTERIOR (EI)” section.
7. Remove headlamp mounting bolts (3).
8. Pull headlamp toward the front of the vehicle.

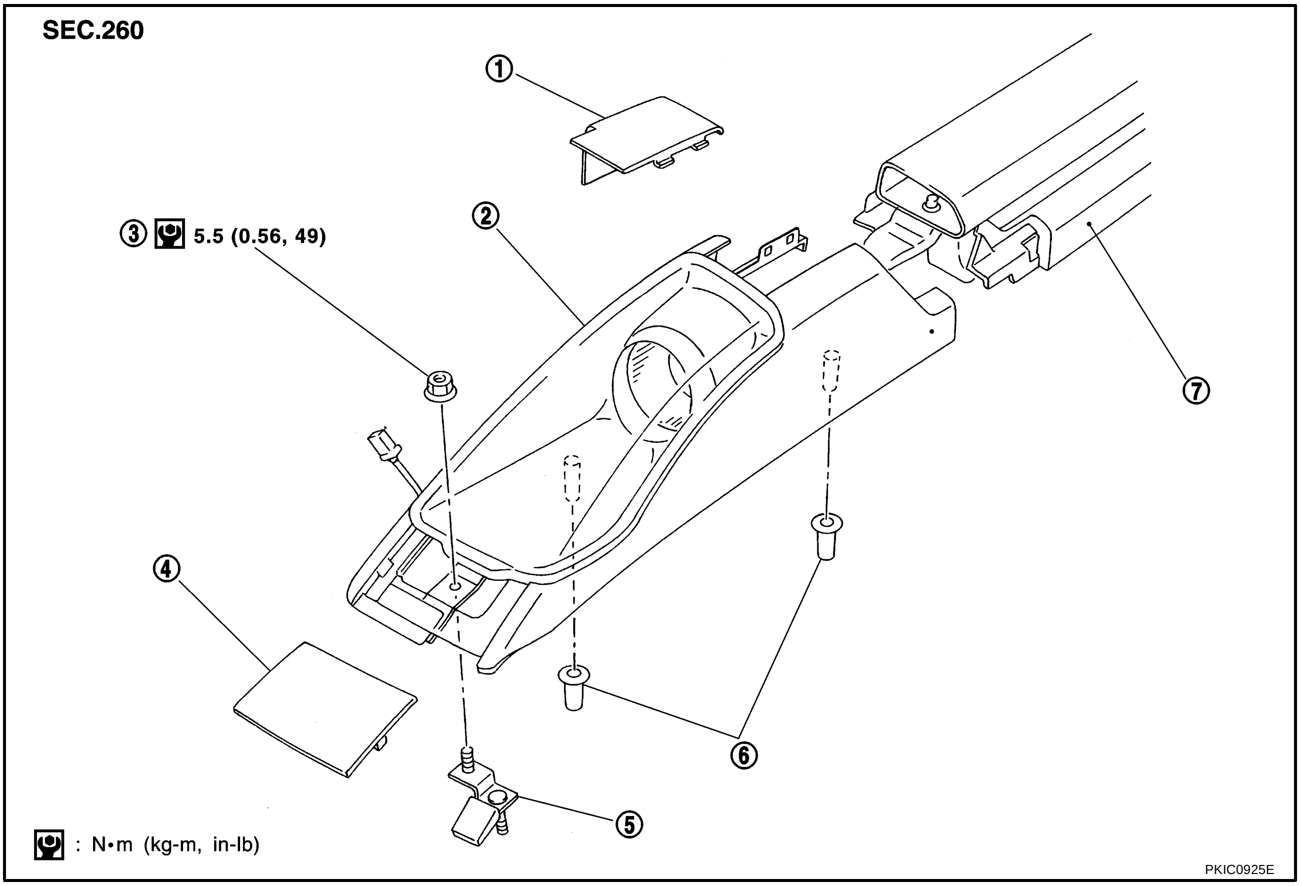
INSTALLATION

Installation is the reverse of removal. Note the tightening torque shown below.

Headlamp mounting bolt : 5.5 N·m (0.56 kg-m, 49 in-lb)

Removal and Installation of Driving Lamp

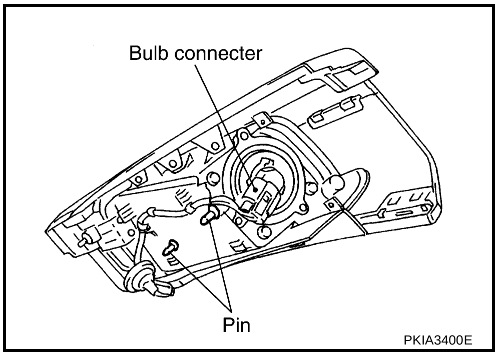
AKS00FND



1.	Cap (rear)	2.	Driving lamp assembly	3.	Nut
4.	Cap (front)	5.	Driving lamp bracket	6.	Grommet
7.	Roof rail				

REMOVAL

1. Remove cap (front) and cap (rear).
2. Remove driving lamp mounting nut.
3. Pull the front of driving lamp toward upper side so that undo the pin from the roof panel.
4. Remove rear end of driving lamp from roof rail.
5. Pull out driving lamp from vehicle and disconnect connector.



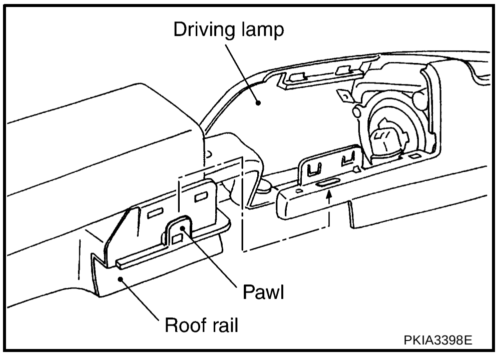
INSTALLATION

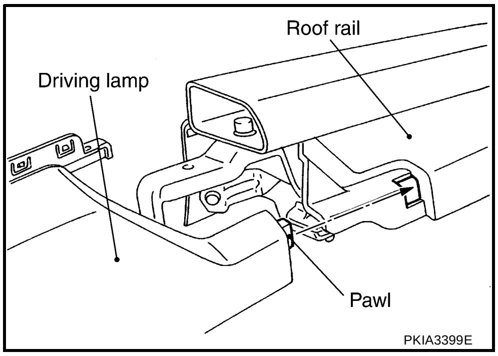
Installation is the reverse order of removal.

Driving lamp mounting nut **: 5.5 N·m (0.56 kg-m, 49 in-lb)**

CAUTION:

- **Make sure the pawl shown in figure be connected correctly.**

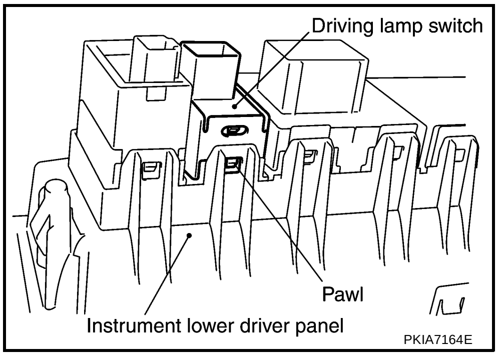




Removal and Installation for Driving Lamp Switch

AKS00FNE

1. Remove the Instrument lower driver panel. Refer to IP-11, "Removal and Installation" in "INSTRUMENT PANEL ASSEMBLY (IP)" section.
2. Press the driving lamp switch fixing pawls and remove it from the Instrument lower driver panel.



TURN SIGNAL AND HAZARD WARNING LAMPS

PFP:26120

System Description

AKS00B83

TURN SIGNAL OPERATION

With the hazard switch in OFF position and ignition switch is in ON or START position,
power is supplied

- through 10A fuse [No. 2, located in fuse block (J/B)]
- to hazard switch terminal 2
- through hazard switch terminal 1
- to combination flasher unit terminal 1
- through combination flasher unit terminal 3
- to combination switch (turn signal) terminal 1.

Ground is supplied

- to combination flasher unit terminal 2
- through grounds M27 and M70.

LH Turn

When the combination switch (turn signal switch) is moved to LH position,
power is supplied

- through combination switch (turn signal switch) terminal 3
- to front turn signal lamp LH terminal 1
- to side turn signal lamp LH terminal 1
- to combination meter (turn signal) terminal 52 and
- to rear combination lamp LH terminal 2.

Ground is supplied

- to front turn signal lamp LH terminal 2
- through grounds E24 and E50
- to side turn signal lamp LH terminal 2
- through grounds E24 and E50
- to rear combination lamp LH terminal 4
- through grounds B8 and B18
- to combination meter (turn signal) terminal 64
- through grounds M27 and M70.

With power and ground supplied, combination flasher unit controls flashing of LH turn signal lamps.

RH Turn

When combination switch (turn signal switch) is moved to RH position,
power is supplied

- through combination switch (turn signal switch) terminal 2
- to front turn signal lamp RH terminal 1
- to side turn signal lamp RH terminal 1
- to combination meter (turn signal) terminal 18 and
- to rear combination lamp RH terminal 2.

Ground is supplied

- to front turn signal lamp RH terminal 2
- through grounds E24 and E50
- to side turn signal lamp RH terminal 2
- through grounds E24 and E50
- to rear combination lamp RH terminal 4
- through grounds B8 and B18
- to combination meter (turn signal) terminal 64

- through grounds M27 and M70.

With power and ground supplied, combination flasher unit controls flashing of RH turn signal lamps.

HAZARD LAMP OPERATION

Power is supplied at all times

- through 10A fuse (No. 35, located in fuse and fusible link box)
- to hazard switch terminal 3.

With the hazard switch in ON position,
power is supplied

- through hazard switch terminal 1
- to combination flasher unit terminal 1
- through combination flasher unit terminal 3
- to hazard switch terminal 4.

Ground is supplied

- to combination flasher unit terminal 2
- through grounds M27 and M70.

Power is supplied (LH side)

- through hazard switch terminal 5
- to front turn signal lamp LH terminal 1
- to side turn signal lamp LH terminal 1
- to combination meter (turn signal) terminal 52 and
- to rear combination lamp LH terminal 2.

Power is supplied (RH side)

- through hazard switch terminal 6
- to front turn signal lamp RH terminal 1
- to side turn signal lamp RH terminal 1
- to combination meter terminal 18 and
- to rear combination lamp RH terminal 2.

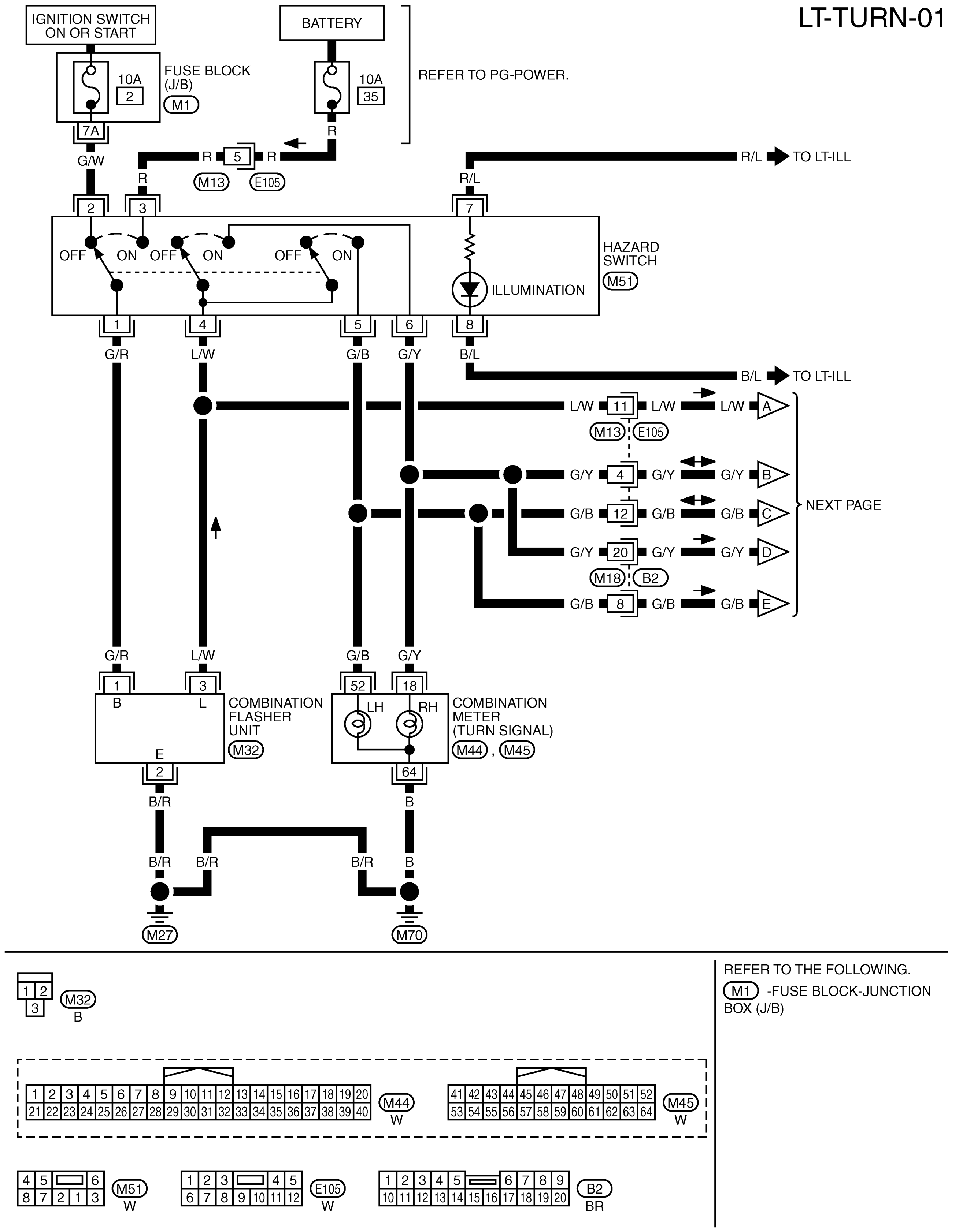
Ground is supplied

- to front turn signal lamp LH and RH terminals 2 and
- to side turn signal lamp LH and RH terminals 2
- through grounds E24 and E50
- to rear combination lamp LH and RH terminals 4
- through grounds B8 and B18
- to combination meter (turn signal) terminal 64
- through grounds M27 and M70.

With power and ground supplied, combination flasher unit controls flashing of hazard warning lamps.

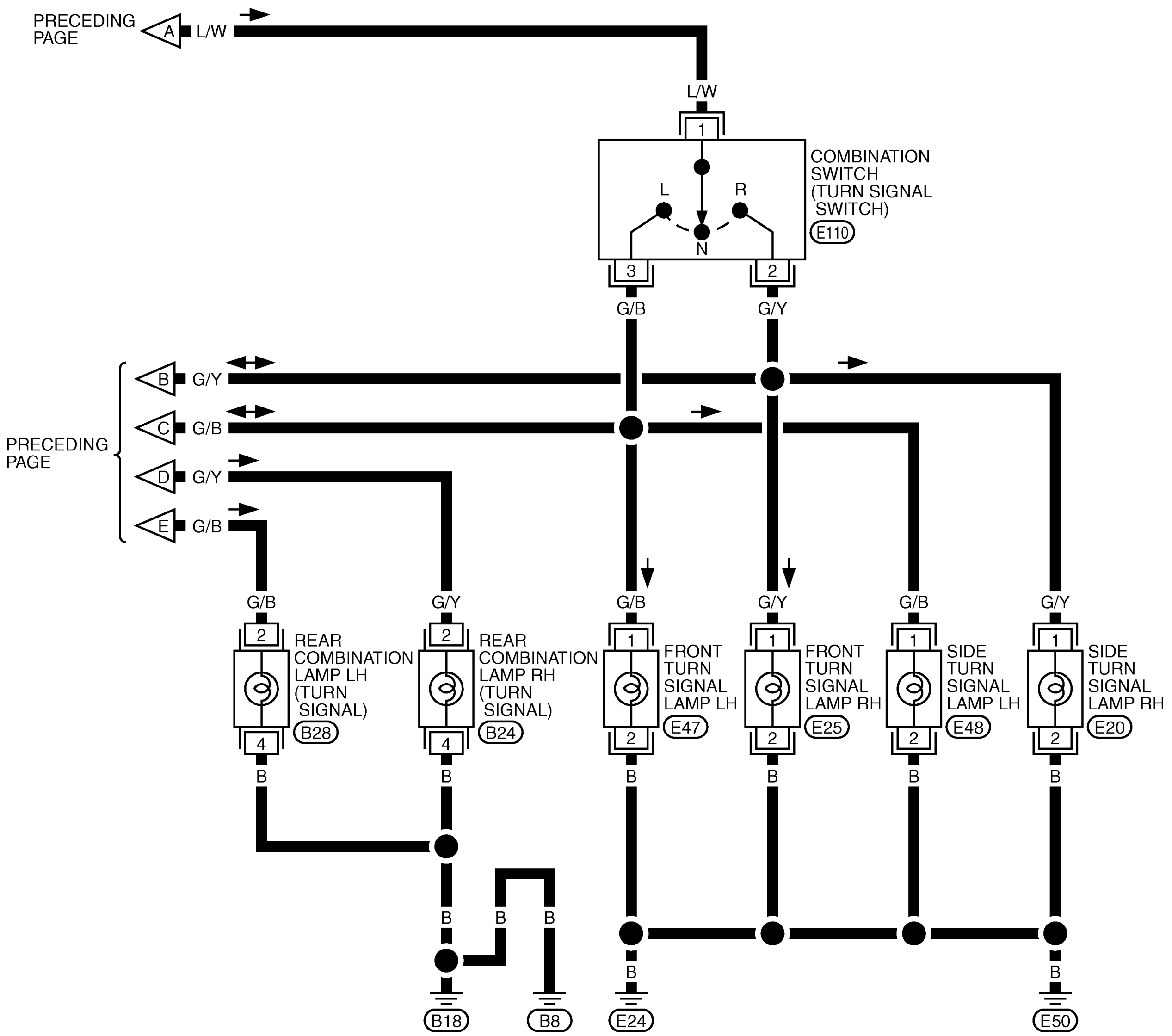
Wiring Diagram — TURN —

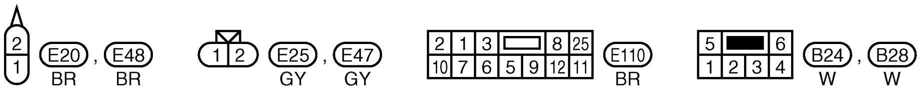
AKS00B84



TKWB2252E

LT-TURN-02





TKWA0073E

Trouble Diagnoses

AKS00B85

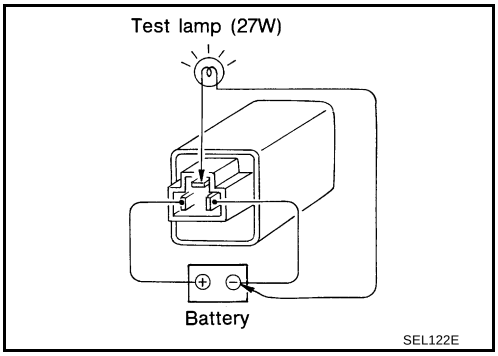
Symptom	Possible cause	Repair order
Turn signal and hazard warning lamps do not operate.	1. Hazard switch 2. Combination flasher unit 3. Open in combination flasher unit circuit	1. Check hazard switch. Refer to LT-29, "HAZARD SWITCH CHECK" . 2. Refer to LT-28, "COMBINATION FLASHER UNIT CHECK" . 3. Check wiring to combination flasher unit for open circuit.
Turn signal lamps do not operate but hazard warning lamps operate.	1. 10A fuse 2. Hazard switch 3. Turn signal switch 4. Open in turn signal switch circuit	1. Check 10A fuse [No. 2, located in fuse block (J/B)]. Turn ignition switch ON and verify battery positive voltage is present at terminal 2 of hazard switch. 2. Check hazard switch. Refer to LT-29, "HAZARD SWITCH CHECK" . 3. Check turn signal switch. Refer to LT-49, "Switch Circuit Inspection" . 4. Check wire between combination flasher unit terminal 3 and turn signal switch terminal 1 for open circuit.
Hazard warning lamps do not operate but turn signal lamps operate.	1. 10A fuse 2. Hazard switch 3. Open in hazard switch circuit	1. Check 10A fuse (No. 35, located in fuse and fusible link box). Verify battery positive voltage is present at terminal 3 of hazard switch. 2. Check hazard switch. Refer to LT-29, "HAZARD SWITCH CHECK" . 3. Check wire between combination flasher unit terminal 3 and hazard switch terminal 4 for open circuit.
Front turn signal lamp LH or RH does not operate.	1. Bulb 2. Grounds E24 and E50	1. Check bulb. 2. Check grounds E24 and E50.
Rear turn signal lamp LH or RH does not operate.	1. Bulb 2. Grounds B8 and B18	1. Check bulb. 2. Check grounds B8 and B18.
Side turn signal lamp LH or RH does not operate.	1. Bulb 2. Grounds E24 and E50	1. Check bulb. 2. Check grounds E24 and E50.
LH and RH turn indicators do not operate.	1. Ground	1. Check grounds M27 and M70.
LH or RH turn indicator does not operate.	1. Bulb	1. Check bulb in combination meter.

Electrical Components Inspection

AKS00B86

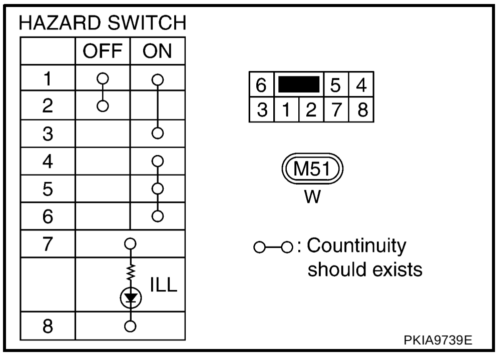
COMBINATION FLASHER UNIT CHECK

- Before checking, ensure that bulbs meet specifications.
- Connect a battery and test lamp to combination flasher unit, as shown. Combination flasher unit is properly functioning if it blinks when power is supplied to circuit.



HAZARD SWITCH CHECK

- Check continuity between the terminals of hazard switch when hazard switch is turned ON and/or OFF.



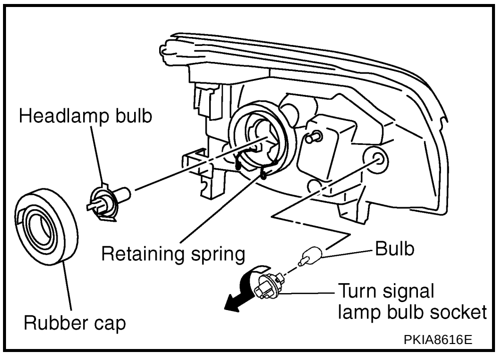
Bulb Replacement

AKS00B87

FRONT TURN SIGNAL LAMP

1. Turn bulb socket counterclockwise and unlock it.
2. Remove bulb from its socket.
3. Installation is the reverse of removal.

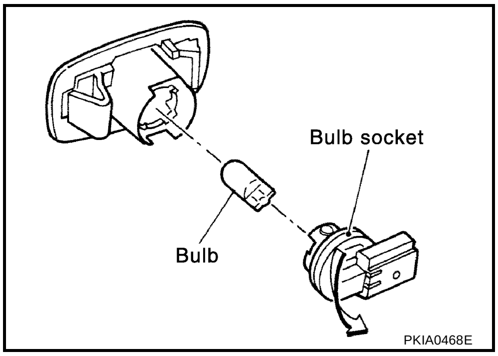
Front turn signal lamp : 12V - 21W (amber)



SIDE TURN SIGNAL LAMP

1. Remove side turn signal lamp. Refer to LT-29, "Removal and Installation of Side Turn Signal Lamp" .
2. Turn bulb socket counterclockwise and unlock it.
3. Remove bulb from its socket.
4. Installation is the reverse of removal.

Side turn signal lamp : 12V - 5W (amber)



REAR TURN SIGNAL LAMP

Refer to LT-48, "Bulb Replacement" .

Removal and Installation of Front Turn Signal Lamp

AKS00B88

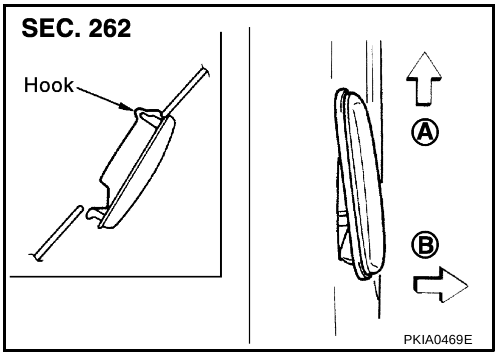
Refer to LT-22, "Removal and Installation of Headlamp" .

Removal and Installation of Side Turn Signal Lamp

AKS00B89

REMOVAL

1. Push side turn signal lamp toward A direction in the figure, and pull up B direction in the figure.
2. Disconnect side turn signal lamp connector.



INSTALLATION

Installation is the reverse of removal.

Removal and Installation of Rear Turn Signal Lamp

AKS00B8A

Refer to LT-48, "Removal and Installation" .

LIGHTING AND TURN SIGNAL SWITCH

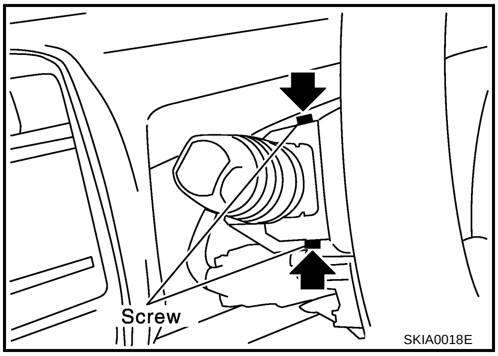
PFP:25540

Removal and Installation

AKS00B8B

REMOVAL

1. Remove steering column cover. Refer to IP-10, "INSTRUMENT PANEL ASSEMBLY" in “INSTRUMENT PANEL (EI)” section.
2. Remove screws (2), then remove lighting and turn signal switch from spiral cable.
3. Disconnect lighting and turn signal switch connector.



SKIA0018E

INSTALLATION

Installation is the reverse of removal.

A
B
C
D
E
F
G
H
I
J
LT
L
M

HAZARD SWITCH

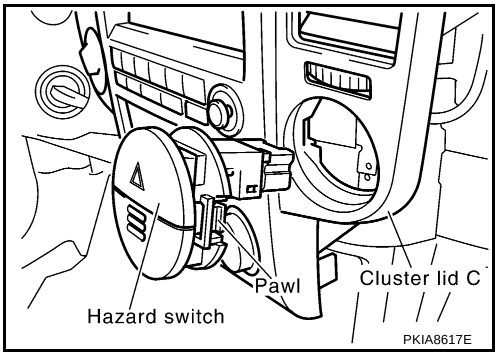
PFP:25290

Removal and Installation

AKS00B8D

REMOVAL

1. Remove cluster lid C. Refer to IP-10, "INSTRUMENT PANEL ASSEMBLY" in “INSTRUMENT PANEL (IP)” section.
2. Disconnect hazard switch connector.
3. Press hazard switch fixing pawls and remove it from cluster lid C.



INSTALLATION

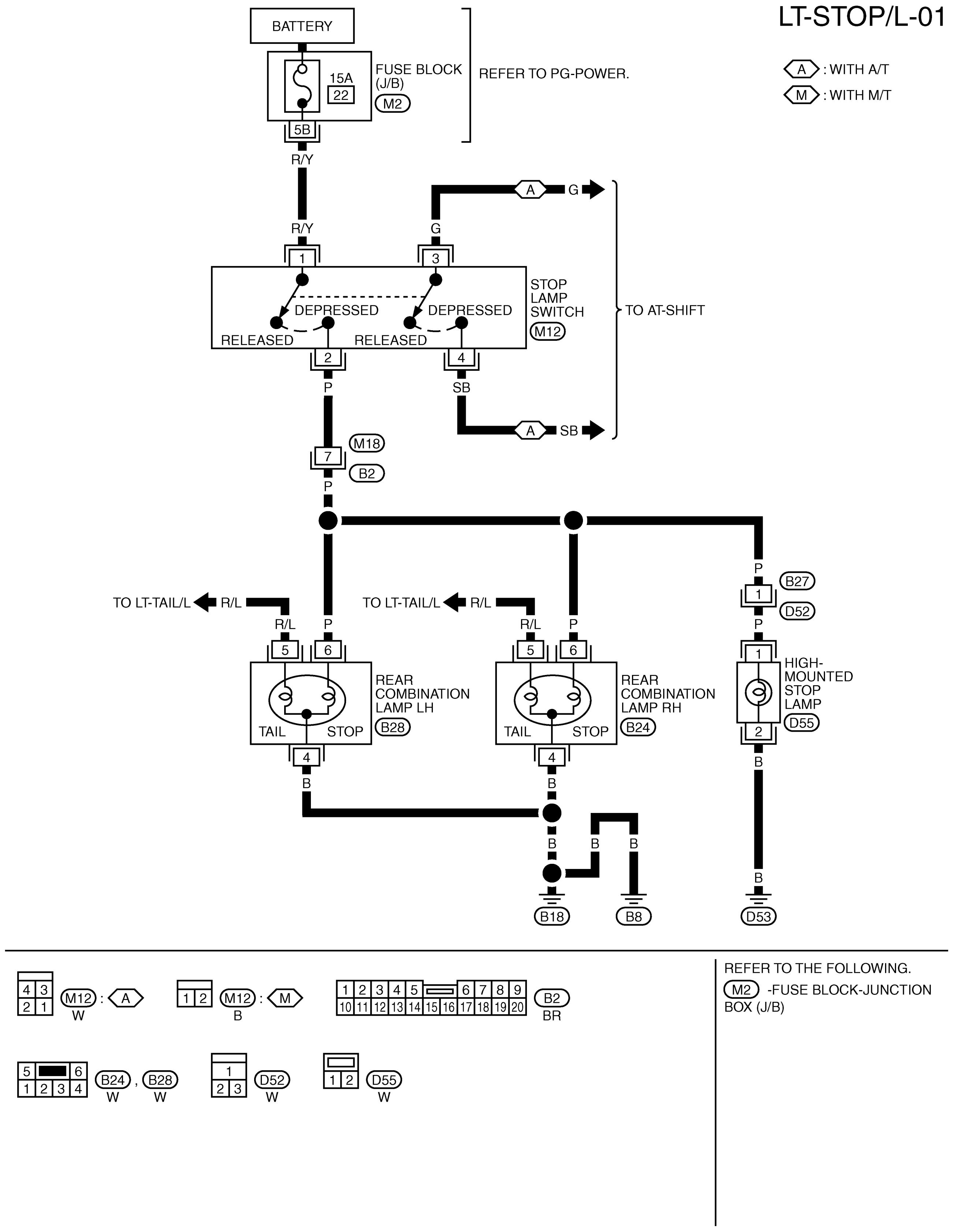
Installation is the reverse of removal.

STOP LAMP

PFP:26550

Wiring Diagram — STOP/L —

AKS00B8E



Bulb Replacement
AKS00B8F

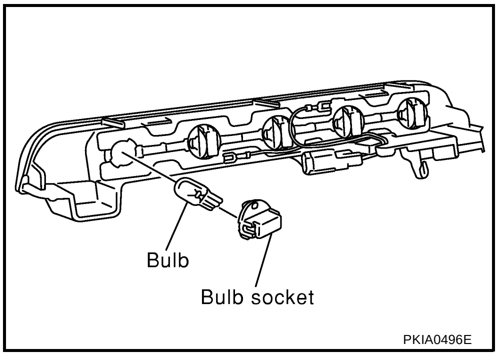
STOP LAMP

Refer to LT-48, "Bulb Replacement" .

HIGH-MOUNTED STOP LAMP

1. Remove high-mounted stop lamp cover. Refer to LT-34, "REMOVAL" .
2. Turn high-mounted stop lamp bulb socket counterclockwise and unlock it.
3. Remove bulb from its socket.
4. Installation is the reverse of removal.

High-mounted Stop Lamp : 12V - 5W



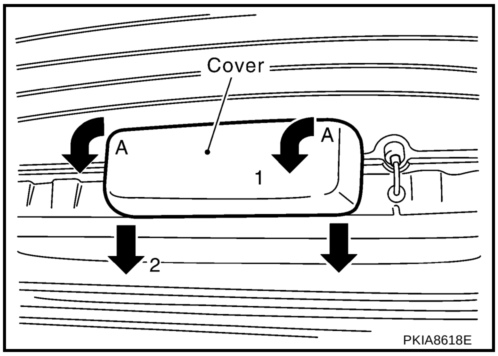
Removal and Installation of Stop Lamp
AKS00B8G

Refer to LT-48, "Removal and Installation" .

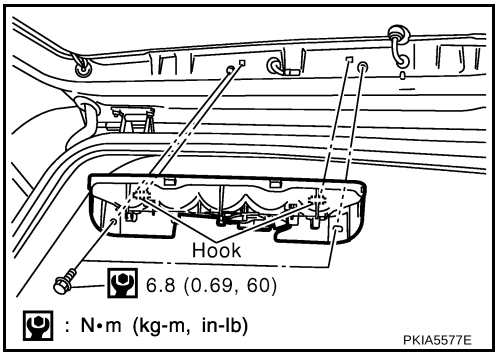
Removal and Installation of High-Mounted Stop Lamp
AKS00BQA

REMOVAL

1. Pull the edge of cover (A in the figure) to each side in turn downward until pawls inside cover are released.
2. Pull down cover toward under the vehicle.



3. Remove high-mounted stop lamp mounting bolts (2).
4. Disconnect high-mounted stop lamp connector and remove high-mounted stop lamp from the vehicle.



INSTALLATION

Installation is the reverse of removal. Note the tightening torque shown below.

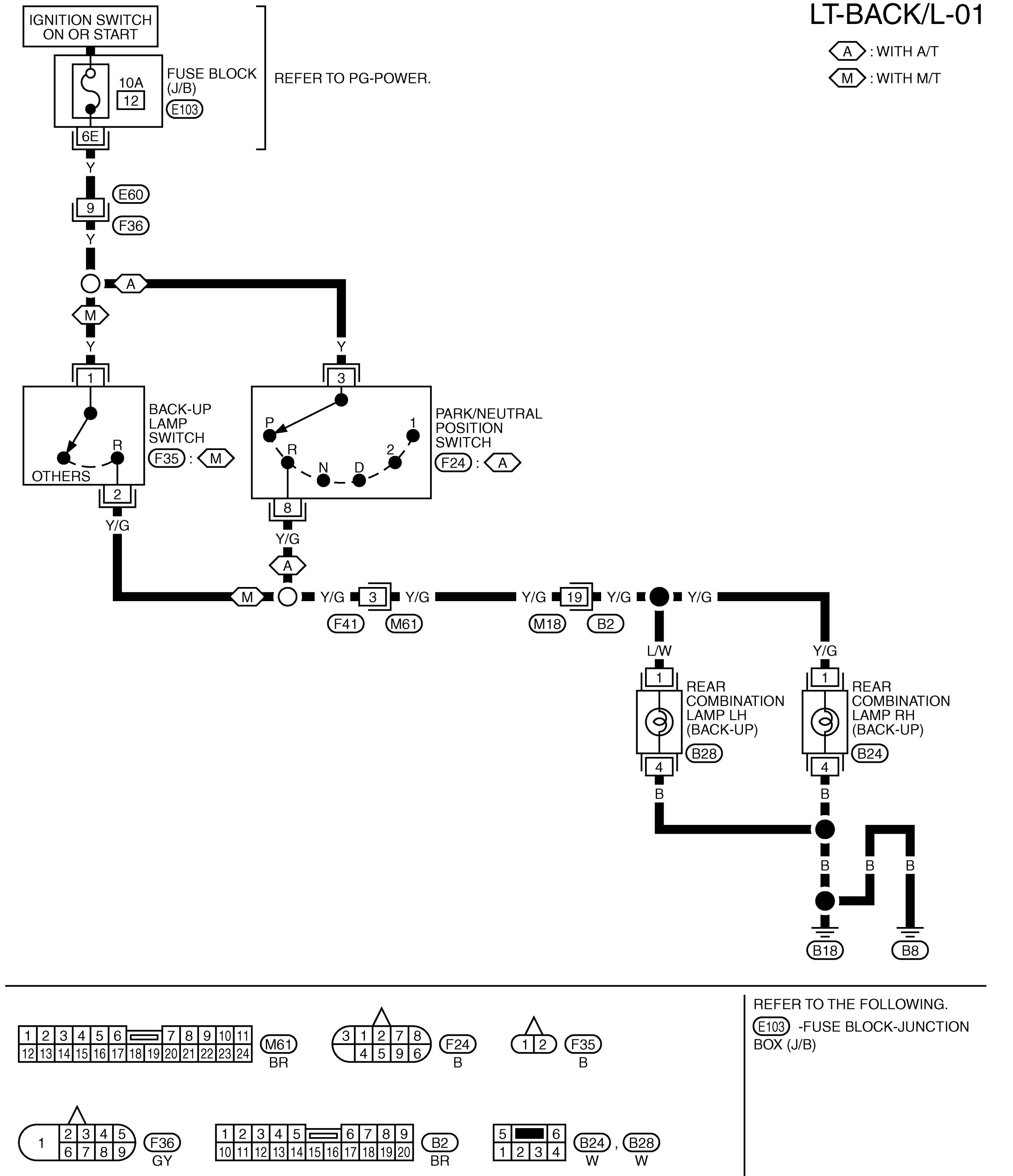
High-mounted stop lamp mounting bolt : 6.8 N·m (0.69kg-m, 60 in-lb)

BACK-UP LAMP

PFP:26550

Wiring Diagram — BACK/L —

AKS00B8H



TKWB0154E

Bulb Replacement

AKS00B8I

Refer to LT-48, "Bulb Replacement" .

Removal and Installation

AKS00B8J

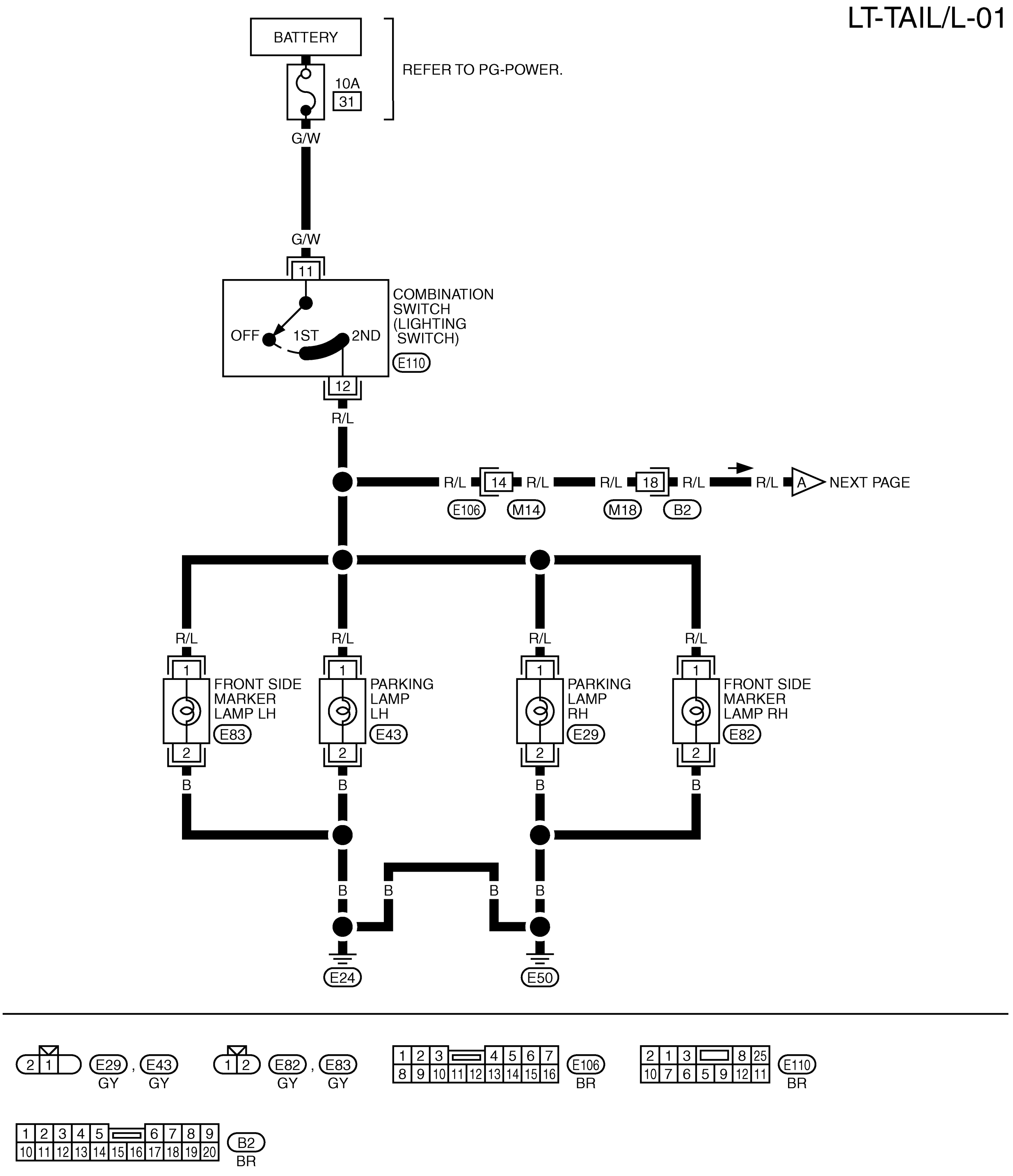
Refer to LT-48, "Removal and Installation" .

PARKING, LICENSE PLATE AND TAIL LAMPS

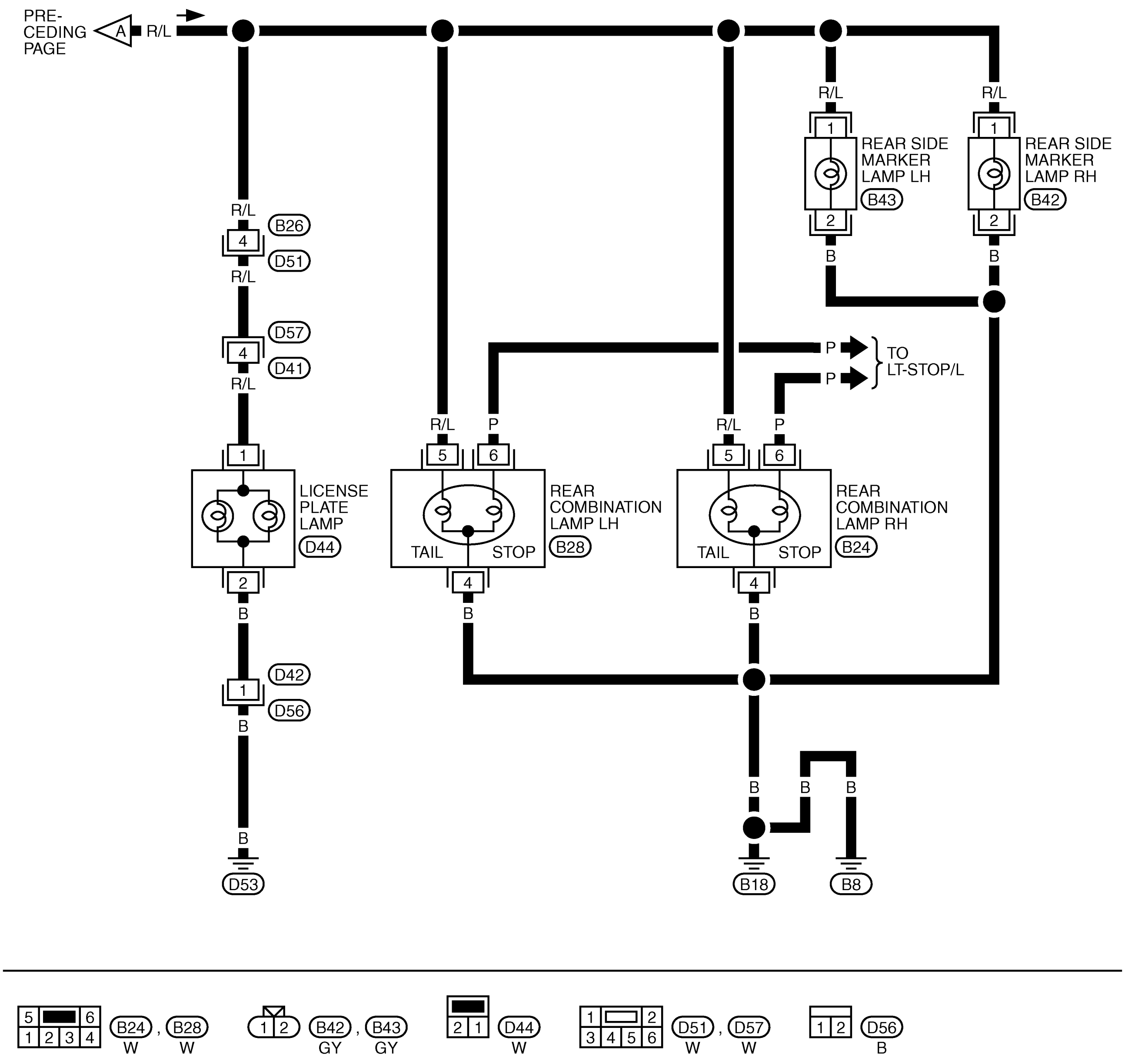
PFP:26550

Wiring Diagram — TAIL/L —

AKS00B8K



LT-TAIL/L-02



TKWB0156E

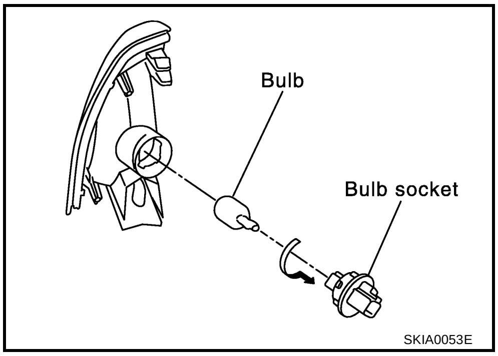
Bulb Replacement

AKS00B8L

PARKING LAMP

1. Remove parking lamp. Refer to LT-39, "Removal and Installation of Parking Lamp" .
2. Turn RH and LH bulb sockets counterclockwise and unlock them.
3. Remove bulb from its socket.
4. Installation is the reverse of removal.

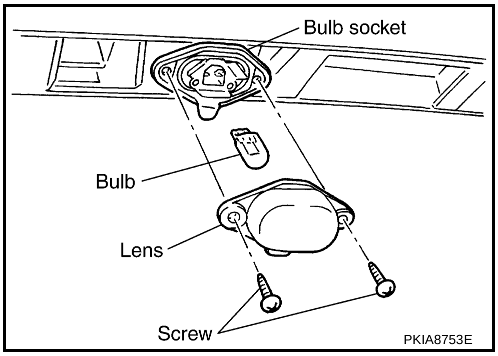
Parking lamp : 12V - 21/5W (21W: Disuse)



LICENSE PLATE LAMP

1. Remove license plate lamp mounting screws (2).
2. Remove lens of license plate lamp.
3. Remove bulb from its socket.
4. Installation is the reverse of removal.

License plate lamp : 12V - 5W



TAIL LAMP

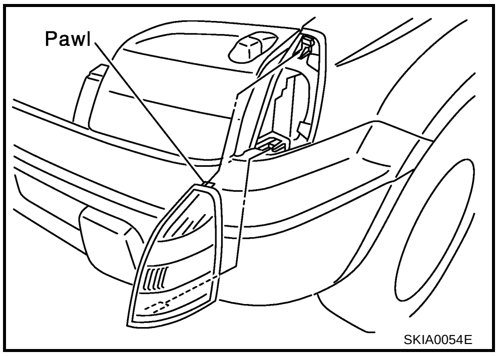
Refer to LT-48, "Bulb Replacement" .

Removal and Installation of Parking Lamp

AKS00C39

REMOVAL

1. Press upper pawl to remove parking lamp toward the front of the vehicle.
2. Disconnect parking lamp connector.



INSTALLATION

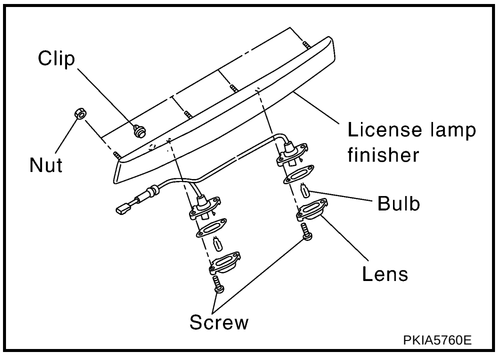
1. Connect parking lamp connector.
2. Insert pawl into headlamp hole, and install parking lamp.

Removal and Installation of License Plate Lamp

AKS00BQB

REMOVAL

1. Remove license lamp finisher. Refer to EI-31, "LICENSE LAMP FINISHER" in “EXTERIOR & INTERIOR (EI)” section.
2. Remove harness from installation pawl for harness.
3. Remove license plate lamp mounting screws (2 each, RH and LH).
4. Pull out license plate lamp from license lamp finisher.



INSTALLATION

Installation is the reverse order of removal. Note the tightening torque shown below.

License plate lamp mounting screw : 1.4 N·m (0.14 kg-m, 12 in-lb)

Removal and Installation of Tail Lamp

AKS00C3B

Refer to LT-48, "Removal and Installation" .

SIDE MARKER LAMP

PFP:26180

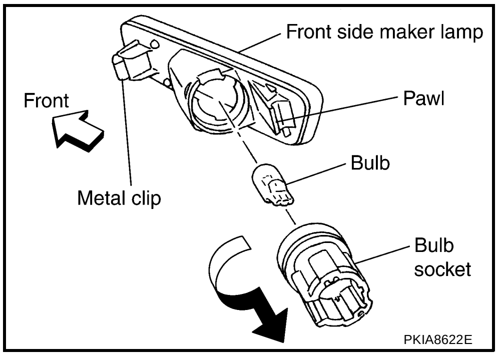
Bulb Replacement

AKS00BQN

FRONT SIDE MARKER LAMP

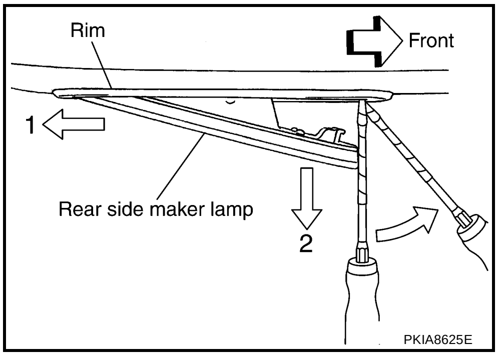
1. Turn lighting switch OFF.
2. Remove fender protector (front). Refer to EI-20, "FENDER PROTECTOR" in “EXTERIOR & INTERIOR (EI) ” section.
3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb from its socket.
5. Installation is the reverse of removal.

Front side marker lamp : 12V - 5W



REAR SIDE MARKER LAMP

1. Turn lighting switch OFF.
2. Insert a screwdriver in the chink between rear side marker lamp and rim, and remove rear side marker lamp.

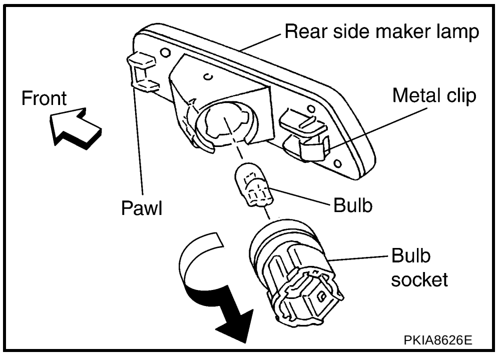


3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb from its socket.
5. Installation is the reverse of removal. Note the following.

NOTE:

To install rear side marker lamp into rim, put pawl side of rear side marker lamp into rim. Push metal clip side of rear side marker lamp.

Rear side marker lamp : 12V - 5W

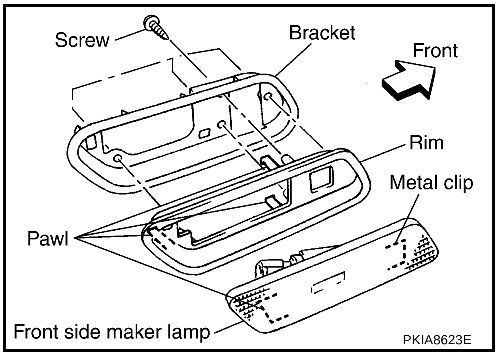


Removal and Installation of Front Side Marker Lamp

AKS00BQO

REMOVAL

1. Turn lighting switch OFF.
2. Remove fender protector (front). Refer to EI-20, "FENDER PROTECTOR" in “EXTERIOR & INTERIOR (EI)” section.
3. Disconnect front side marker lamp connector and front fog lamp connector (with front fog lamp).
4. Remove front grille. Refer to EI-18, "FRONT GRILLE" in “EXTERIOR & INTERIOR (EI)” section.
5. Remove front bumper. Refer to EI-14, "FRONT BUMPER" in “EXTERIOR & INTERIOR (EI)” section.
6. Remove front side marker lamp mounting screws (4).
7. Remove rim from bracket.
8. Remove front side marker lamp from rim.



INSTALLATION

Installation is the reverse of removal. Note the following.

NOTE:

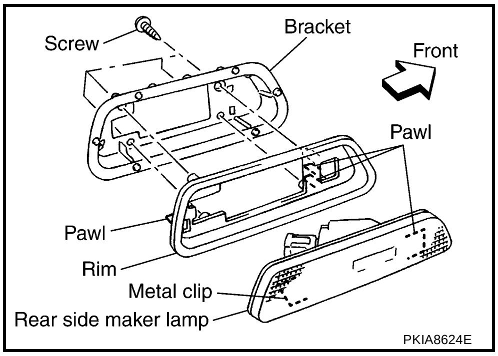
To install front side marker lamp into rim, put pawl side of front side marker lamp into rim. Push metal clip side of front side marker lamp.

Removal and Installation of Rear Side Marker Lamp

AKS00BQP

REMOVAL

1. Turn lighting switch OFF.
2. Remove rear bumper. Refer to EI-16, "REAR BUMPER" in “EXTERIOR & INTERIOR (EI)” section.
3. Disconnect rear side marker lamp connector.
4. Remove rear side marker lamp mounting screws (4).
5. Remove rim from bracket.
6. Remove rear side marker lamp from rim.



INSTALLATION

Installation is the reverse of removal. Note the following.

NOTE:

To install rear side marker lamp into rim, put pawl side of rear side marker lamp into rim. Push metal clip side of rear side marker lamp.

FRONT FOG LAMP

PFP:00011

System Description

AKS00B8O

DESCRIPTION

Power is supplied at all times

- through 10A fuse (No. 31, located in fuse and fusible link box)
- to combination switch (lighting switch) terminal 11
- through 15A fuse (No. 42, located in fuse and fusible link box)
- to front fog lamp relay terminal 3.

With lighting switch in the 1ST or 2ND position,
power is supplied

- through 10A fuse (No. 31, located in fuse and fusible link box)
- to combination switch (lighting switch) terminal 11
- through combination switch (lighting switch) terminal 12
- to combination switch (front fog lamp switch) terminal 32
- through combination switch (front fog lamp switch) terminal 31
- to front fog lamp relay terminal 2.

FOG LAMP OPERATION

The front fog lamp switch is built in combination switch. The lighting switch must be in the 1st or 2nd position for front fog lamp operation.
With front fog lamp switch in the ON position,
ground is supplied

- to front fog lamp relay terminal 1
- through grounds E24 and E50.

Front fog lamp relay is energized and power is supplied

- from front fog lamp relay terminal 5
- to front fog lamp LH and RH terminals 1 and
- to combination meter (front fog) terminal 15.

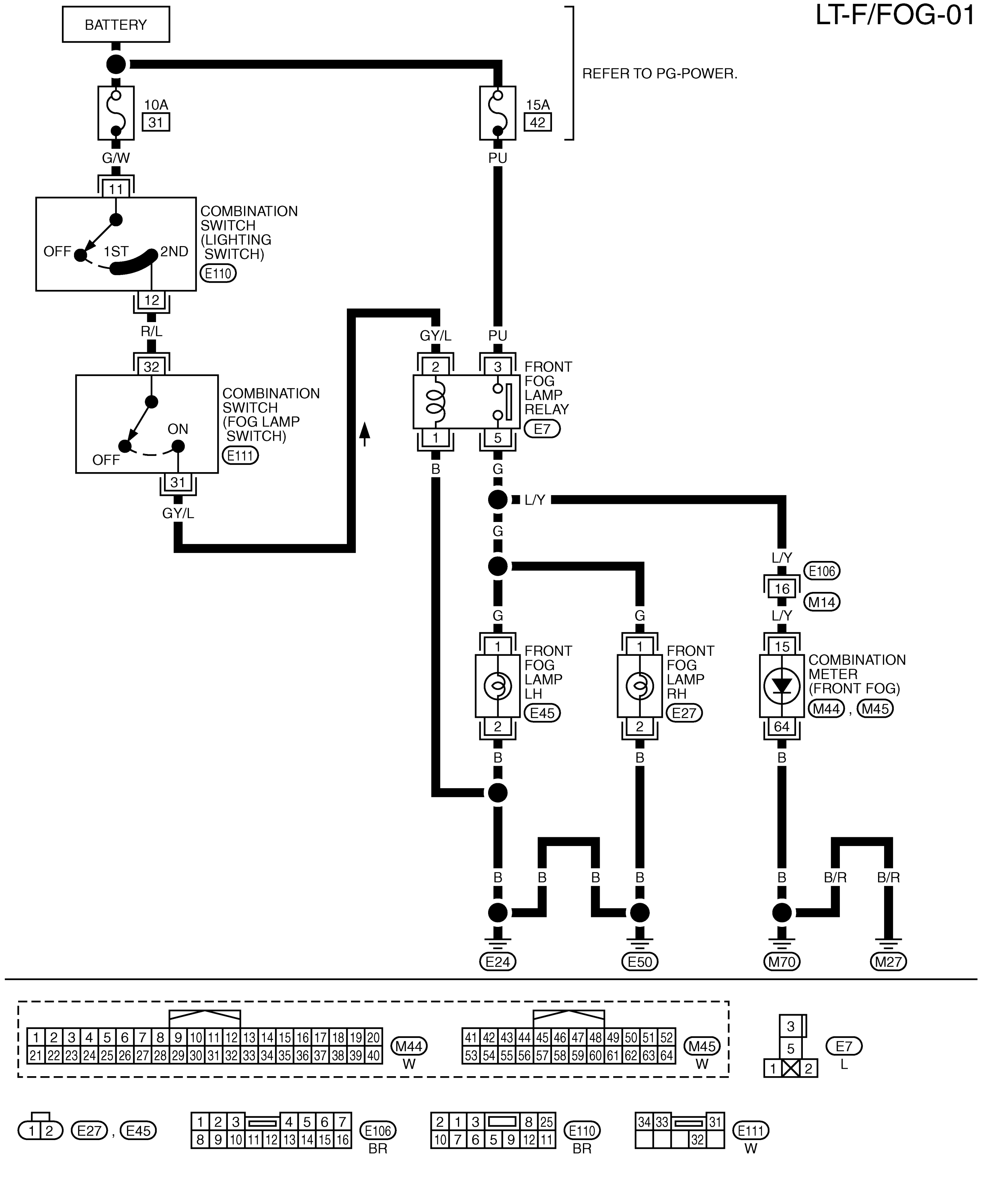
Ground is supplied

- to front fog lamp LH and RH terminals 2
- through grounds E24 and E50
- to combination meter (front fog) terminal 64
- through grounds M27 and M70.

With power and ground supplied, front fog lamps illuminate.

Wiring Diagram — F/FOG —

AKS00B8P

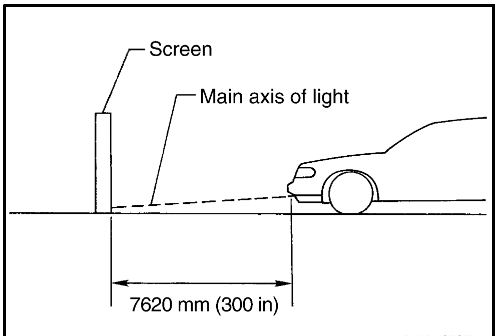


TKWB0157E

Aiming Adjustment

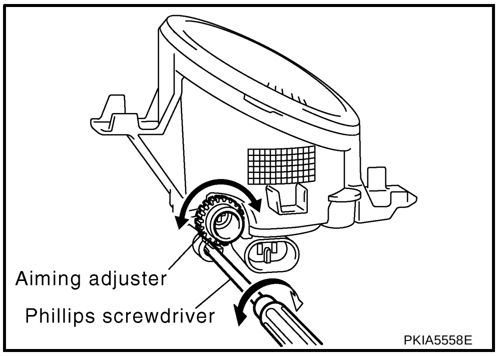
AKS00B8Q

1. Set the distance between the screen and the center of front fog lamp lens as shown in the figure.
2. Turn front fog lamps ON.



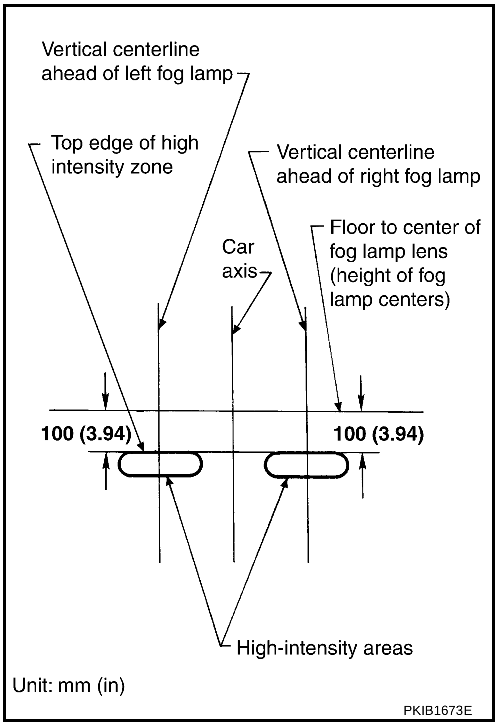
PKIB1672E

3. Insert a phillips screwdriver into the access hole and engage the tip of screwdriver with the gear of the adjuster as shown in the figure. Aiming adjuster can now be turned by turning screw-driver.



PKIA5558E

4. Adjust front fog lamps so that the top edge of the high intensity zone is 100 mm (3.94 in) below the height of front fog lamp centers as shown in the figure.
   - When performing adjustment, if necessary, cover headlamps and opposite front fog lamp.

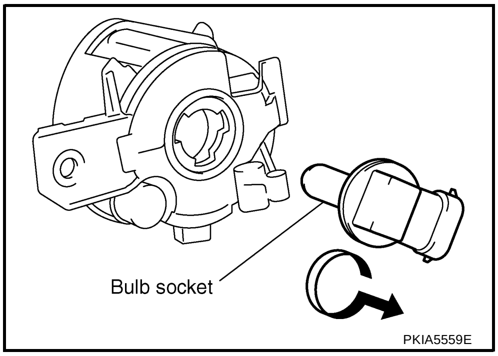


PKIB1673E

Bulb Replacement

AKS00B8R

1. Remove front fog lamp. Refer to LT-46, "Removal and Installation" .
2. Turn bulb socket counterclockwise and unlock it.
3. Remove bulb from its socket.
4. Installation is the reverse of removal.



Front fog lamp : 12V - 55W (H11)

CAUTION:

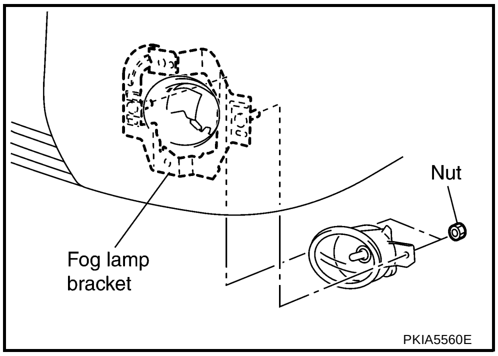
- **Do not touch glass of bulb directly by hand. Keep grease and other oily matters away from it. Do not touch bulb by hand while it is lit or right after being turned off. Burning may result.**
- **Do not leave bulb out of fog lamp housing for a long time because dust, moisture, smoke, etc. May affect the performance of front fog lamp. When replacing bulb, be sure to replace it with new one.**

Removal and Installation

AKS00B8S

REMOVAL

1. Remove fender protector. Refer to EI-20, "FENDER PROTECTOR" .
2. Disconnect front fog lamp connector.
3. Remove front fog lamp mounting nuts (2) from fog lamp bracket.
4. Pull out front fog lamp from vehicle and disconnect connector.



INSTALLATION

Installation is the reverse of removal. Note the tightening torque shown below.

Front fog lamp mounting nut : 5.5 N·m (0.56 kg-m, 49 in-lb)

HIGH-MOUNTED STOP LAMP

PFP:26590

Bulb Replacement

AKS00B90

Refer to LT-34, "HIGH-MOUNTED STOP LAMP" .

Removal and Installation

AKS00B91

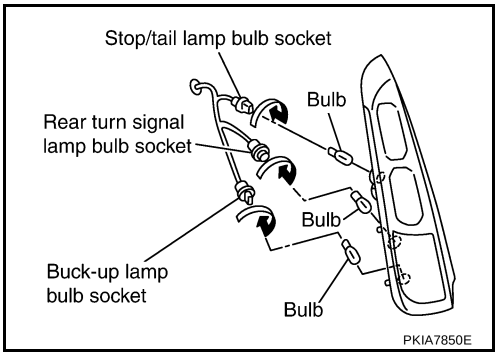
Refer to LT-34, "REMOVAL" .

REAR COMBINATION LAMP

PFP:26554

Bulb Replacement

AKS00B93



PKIA7850E

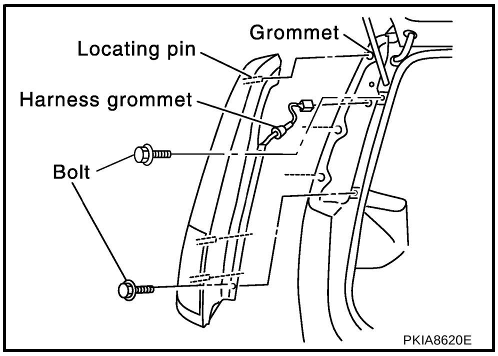
1. Remove rear combination lamp mounting bolts (2).
2. Pull rear combination lamp toward rear of vehicle. Disengage locating pins (3).
3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb from its socket.
5. Installation is the reverse of removal.

Stop/tail lamp	**: 12V - 21/5W**
Rear turn signal lamp	**: 12V - 21W**
Back-up lamp	**: 12V - 21W**

Removal and Installation

AKS00B94

REMOVAL



PKIA8620E

1. Remove luggage-side lower finisher. Refer to EI-36, "BODY SIDE TRIM" in “EI EXTERIOR & INTERIOR” section.
2. Disconnect rear combination lamp connector.
3. Remove rear combination lamp mounting bolts (2).
4. Pull rear combination lamp toward rear of vehicle. Disengage locating pins (3).
5. From outside the vehicle, pull harness grommet rearward, and remove harness.

INSTALLATION

Installation is the reverse of removal. Note the tightening torque shown below.

Rear combination lamp mounting bolt : **5.5 N·m (0.56 kg-m, 49 in-lb)**

COMBINATION SWITCH

PFP:25567

Removal and Installation

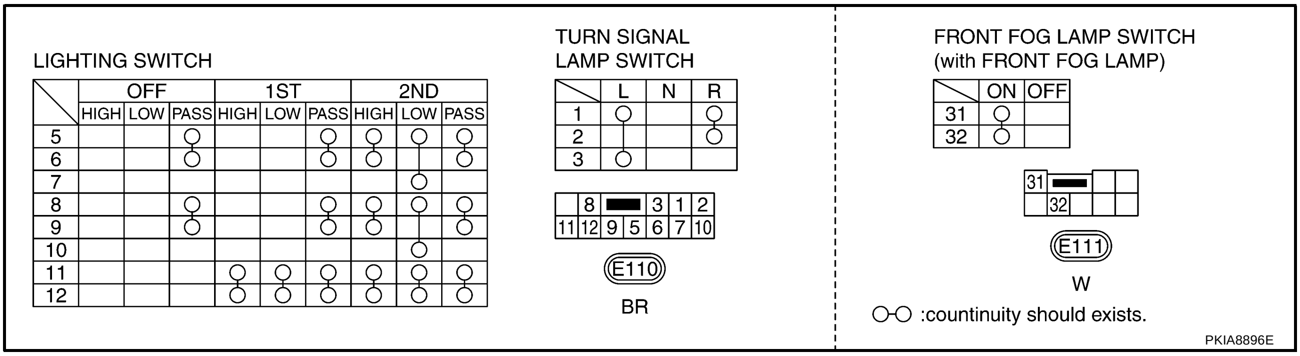
AKS00B95

Refer to LT-31, "Removal and Installation" in “LIGHTING AND TURN SIGNAL SWITCH (LT)” section.

Switch Circuit Inspection

AKS00C3X

- Using circuit tester, check continuity between lighting and turn signal switch connector terminals in each operation status of switch.
  Lighting switch refers to LT-9, "Wiring Diagram — H/LAMP —" .
  Turn signal switch refers to LT-26, "Wiring Diagram — TURN —" .
  Fog lamp switch refers to LT-44, "Wiring Diagram — F/FOG —" .



- If any malfunction is found, replace switch. Refer to LT-31, "Removal and Installation" .

A B C D E F G H I J LT L M

INTERIOR ROOM LAMP

PFP:26410

System Description

AKS00B9C

POWER SUPPLY AND GROUND

Power is supplied at all times

- through 10A fuse [No. 28, located in fuse block (J/B)]
- to key switch terminal 1 and
- through 10A fuse [No. 26, located in fuse block (J/B)]
- to smart entrance control unit terminal 49.

When key is withdrawn from ignition key cylinder,
power is interrupted

- through key switch terminal 2
- to smart entrance control unit terminal 25.

With ignition key switch in ON or START position,
power is supplied

- through 10A fuse [No. 5, located in fuse block (J/B)]
- to smart entrance control unit terminal 27.

Ground is supplied

- to smart entrance control unit terminals 43 and 64
- through grounds M27 and M70.

When front driver side door is opened,
ground is supplied

- through grounds B8 and B18
- to front door switch (driver side) terminal 3
- from front door switch (driver side) terminal 2
- to smart entrance control unit terminal 1.

When any door (except back door) is opened,
ground is supplied

- through case ground of each door switch
- to each door switch terminal 1
- to smart entrance control unit terminal 2.

When back door is opened,
ground is supplied

- through ground D53
- to back door switch terminal 3
- from back door switch terminal 1
- to smart entrance control unit terminal 2.

When power window main switch (door lock/unlock switch) is unlocked, smart entrance control unit receives a ground signal

- through grounds M27 and M70
- to power window main switch (door lock/unlock switch) terminal 19
- from power window main switch (door lock/unlock switch) terminal 18
- to smart entrance control unit terminal 4.

When driver side or passenger side door key cylinder switch is unlocked, smart entrance control unit receives a ground signal

- through grounds M27 and M70
- to door key cylinder switch (driver side and passenger side) terminal 2
- from door key cylinder switch terminal 3 (driver side) or terminal 1 (passenger side)
- to smart entrance control unit terminal 10.

When a signal or combination of signals is received by smart entrance control unit,
ground is supplied

- through smart entrance control unit terminal 31
- to interior room lamp terminal 2
- to map lamp terminal 3 (with sunroof).

With power and ground supplied, interior room lamp and map lamp (with sunroof) illuminates.

SWITCH OPERATION

When interior room lamp switch is ON,
ground is supplied

- through case grounds of interior room lamp
- to interior room lamp.

And power is supplied

- to interior room lamp terminal 1
- from smart entrance control unit terminal 50.

When map lamp switch is ON (with sunroof),
ground is supplied

- through grounds M27 and M70
- to map lamp terminal 2.

And power is supplied

- to map lamp terminal 1
- from smart entrance control unit terminal 50.

When luggage room lamp switch is ON,
ground is supplied

- through case grounds of luggage room lamp
- to luggage room lamp.

And power is supplied

- to luggage room lamp terminal 1
- from smart entrance control unit terminal 50.

When front door switch (driver side) is ON (door is opened),
ground is supplied

- through case ground of front door switch (driver side)
- from front door switch (driver side) terminal 1
- to luggage room lamp terminal 2.

And power is supplied

- to luggage room lamp terminal 1
- from smart entrance control unit terminal 50.

When front door switch (passenger side) is ON (door is opened),
ground is supplied

- through case ground of front door switch (passenger side)
- from front door switch (passenger side) terminal 1
- to luggage room lamp terminal 2.

And power is supplied

- to luggage room lamp terminal 1
- from smart entrance control unit terminal 50.

When rear door switch (LH and/or RH) is ON (door is opened),
ground is supplied

- through case ground of rear door switch
- from rear door switch terminal 1
- to luggage room lamp terminal 2.

And power is supplied

- to luggage room lamp terminal 1
- from smart entrance control unit terminal 50.

When back door switch is ON (door is opened),
ground is supplied

- through ground D53
- to back door switch terminal 3
- from back door switch terminal 1
- to luggage room lamp terminal 2.

And power is supplied

- to luggage room lamp terminal 1
- from smart entrance control unit terminal 50.

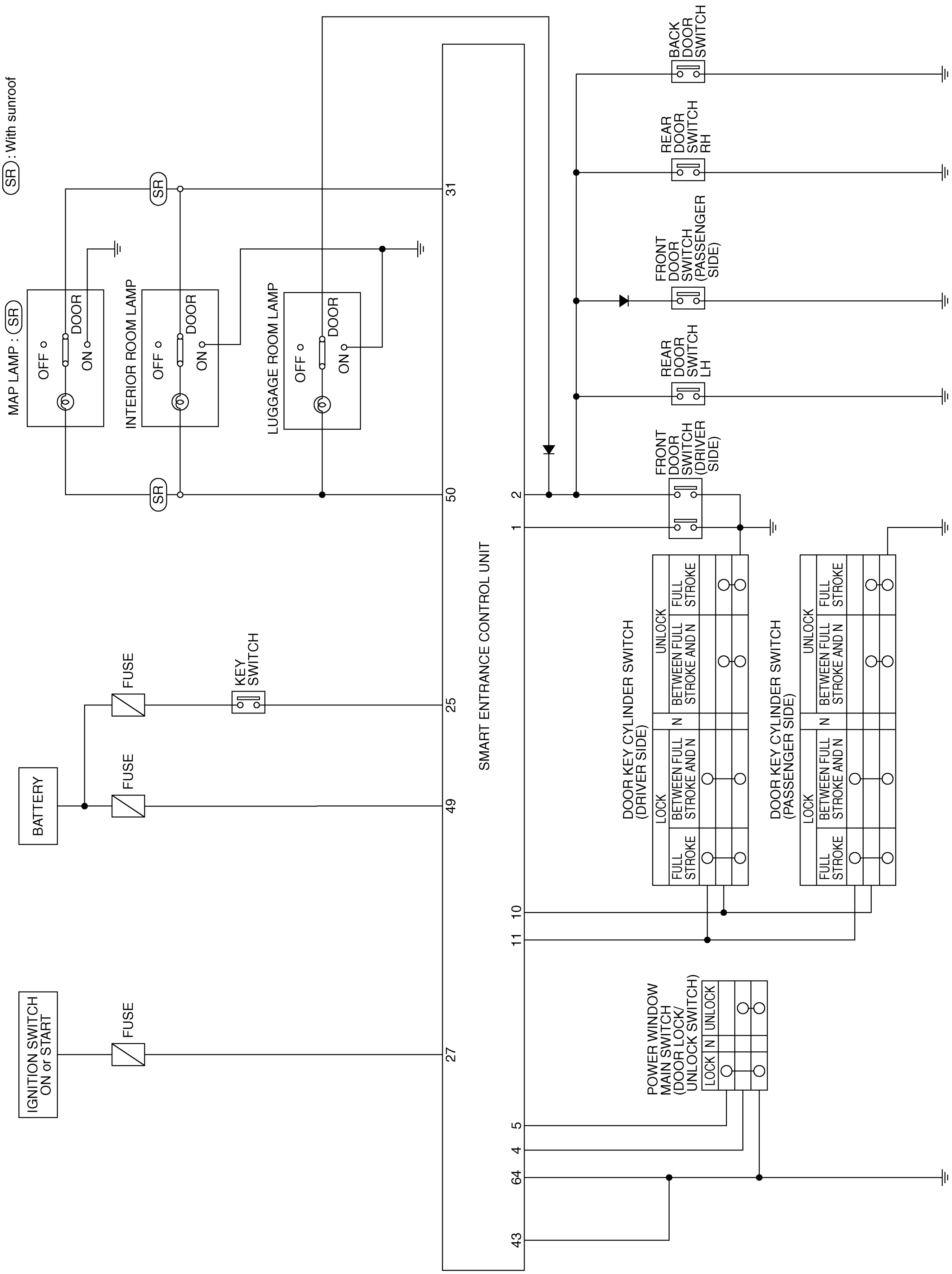
BATTERY SAVER

The lamp turns OFF automatically when interior room lamp, map lamp (with sunroof) and/or luggage room lamp is illuminated with ignition key is in OFF position. If the lamp remains lit by door switch open signal or if lamp switch is in ON position for more than 30 minutes.
After lamps turn OFF by battery saver system, lamps illuminate again when

- driver door is locked or unlocked,
- door is opened or closed,
- key is removed from ignition key switch or inserted in ignition key switch,
- door key cylinder is locked or unlocked.

Schematic

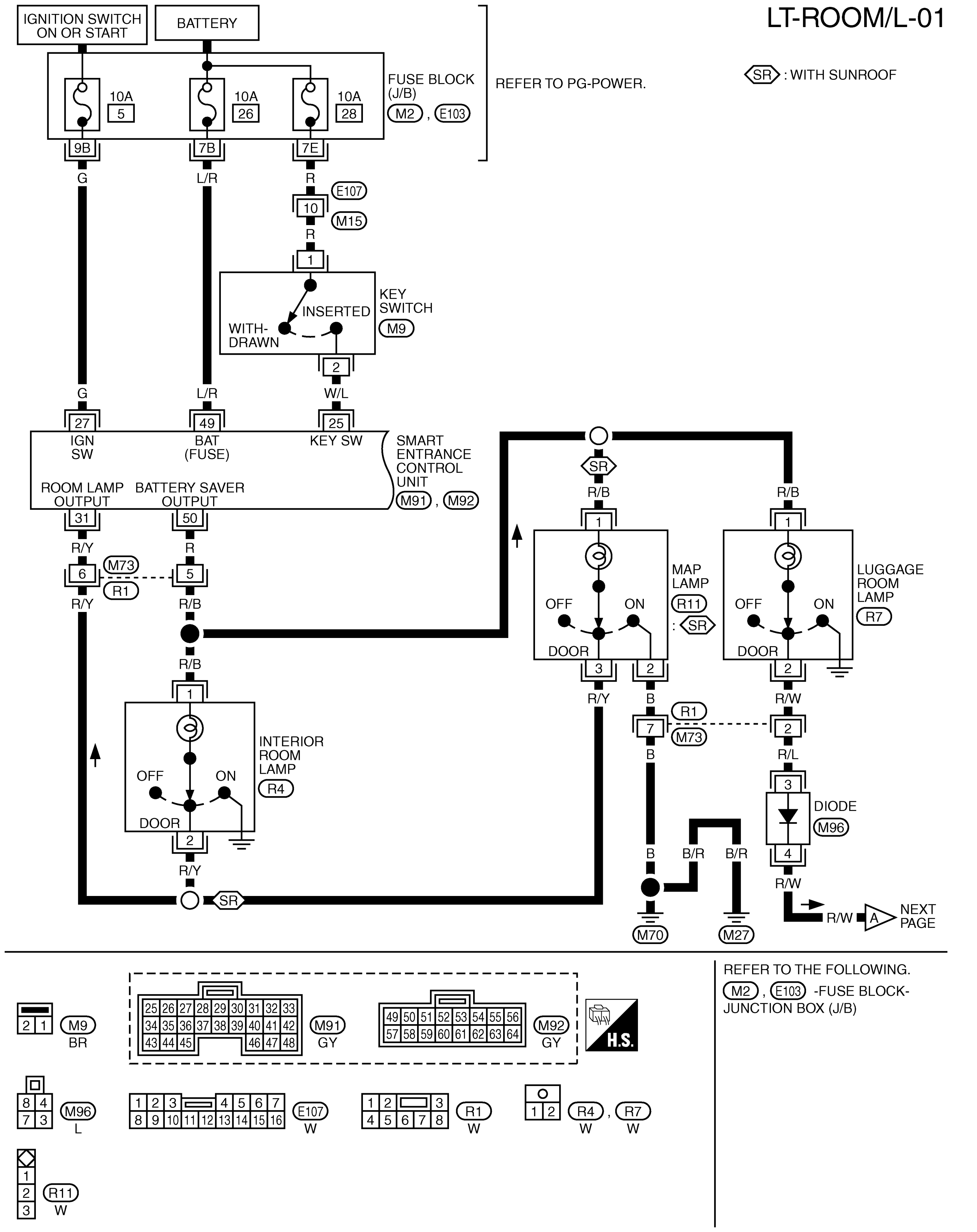
AKS00B9E



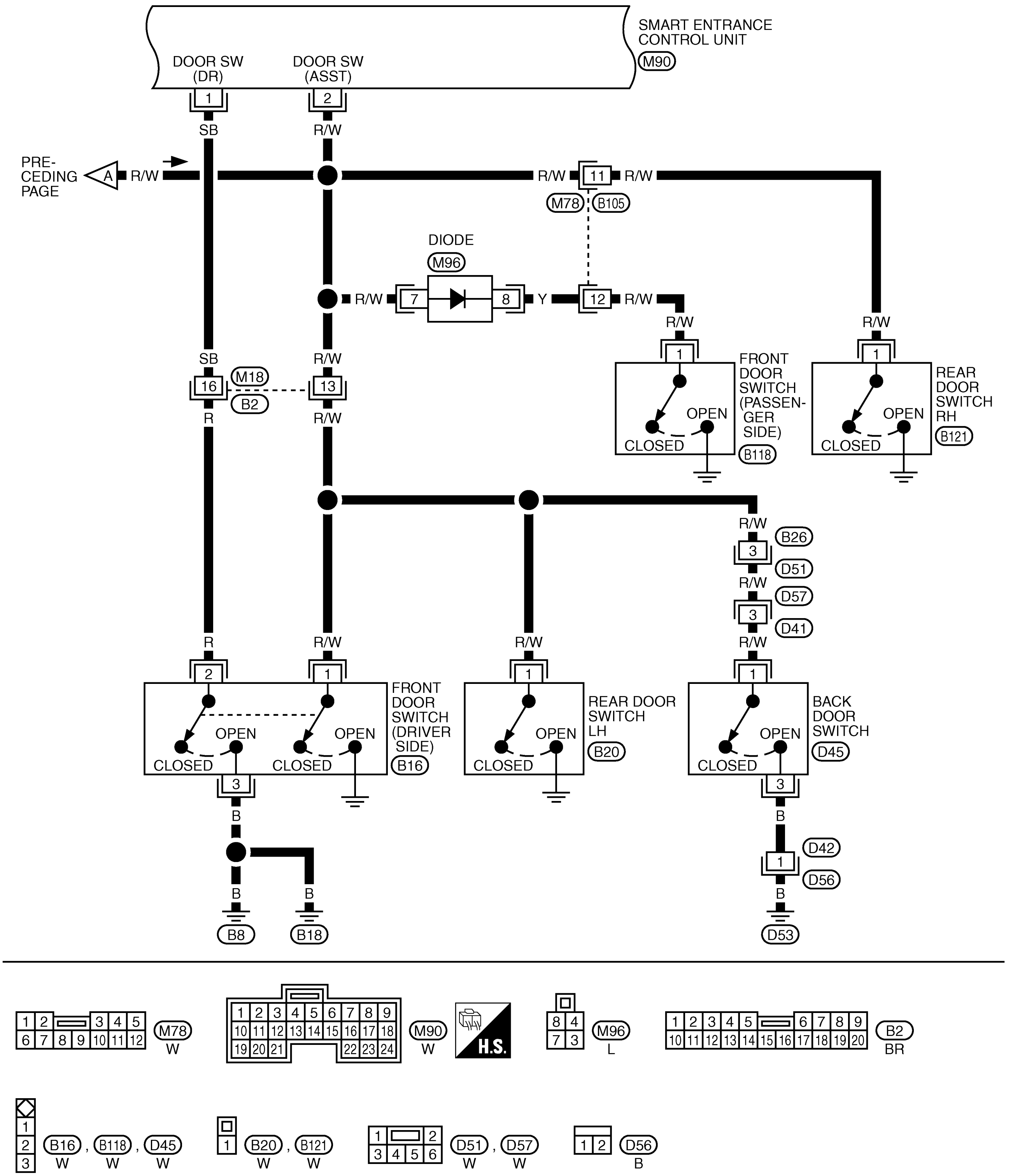
TKWB0163E

Wiring Diagram —ROOM/L—

AKS00B9F

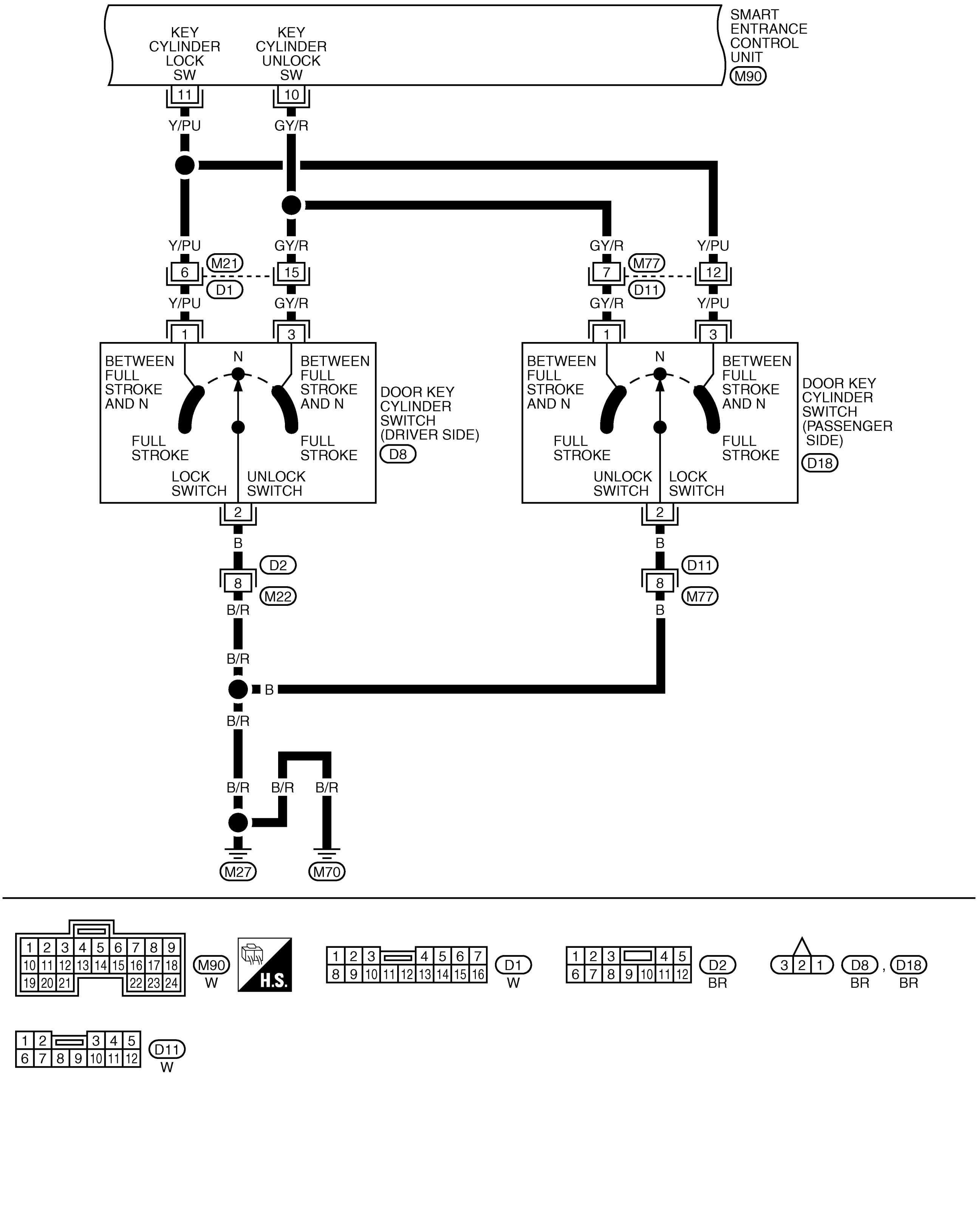


LT-ROOM/L-02

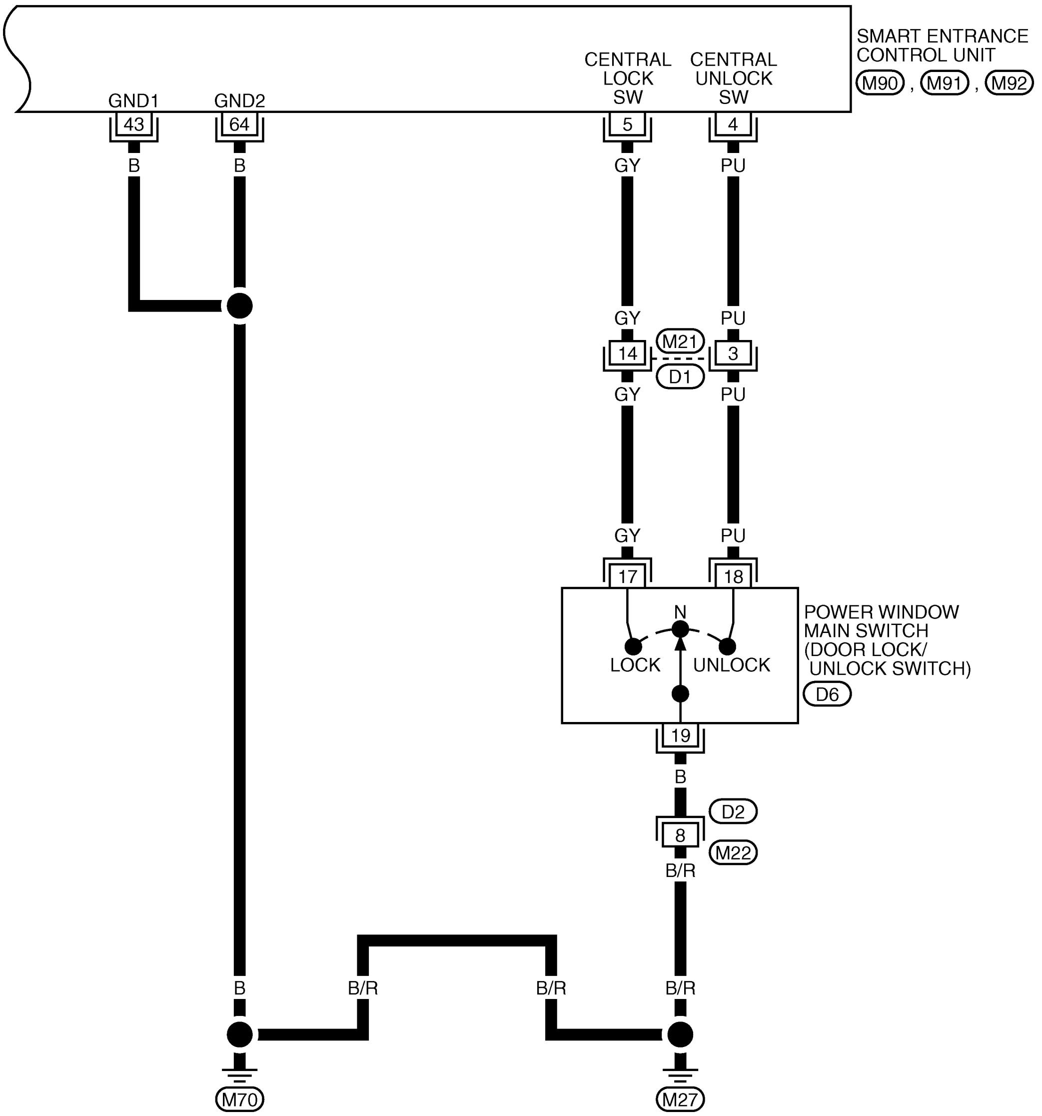


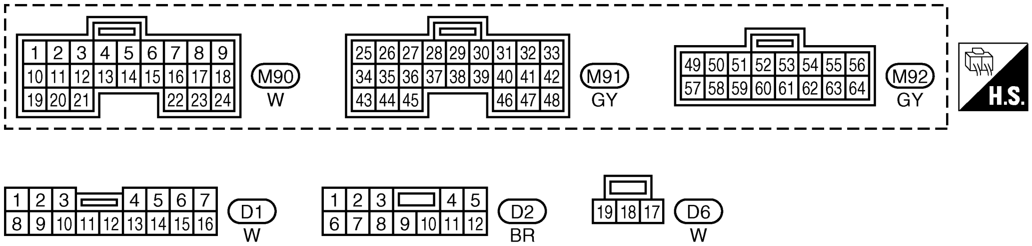
TKWB0165E

LT-ROOM/L-03


SMART
ENTRANCE
CONTROL
UNIT
M90
KEY
CYLINDER
LOCK
SW
KEY
CYLINDER
UNLOCK
SW
11
10
Y/PU
GY/R
M21
D1
6
15
M77
D11
7
12
1
3
BETWEEN FULL STROKE AND N
N
BETWEEN FULL STROKE AND N
FULL STROKE
FULL STROKE
LOCK SWITCH
UNLOCK SWITCH
DOOR KEY CYLINDER SWITCH (DRIVER SIDE)
D8
DOOR KEY CYLINDER SWITCH (PASSENGER SIDE)
D18
2
B
D2
8
M22
B/R
D11
M77
M27
M70
M90
W
H.S.
D1
W
D2
BR
D8
D18
BR
BR
D11
W
TKWB0166E

LT-ROOM/L-04





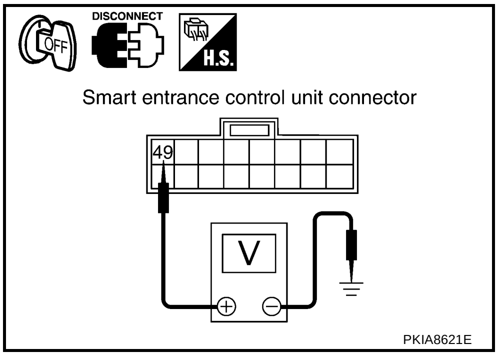
TKWB0167E

Interior Room Lamp Timer Does Not Operate

AKS00B9I

1. CHECK POWER SUPPLY SIGNAL

1. Turn ignition switch OFF.
2. Disconnect smart entrance control unit connector.
3. Check voltage between smart entrance control unit harness connector and ground.



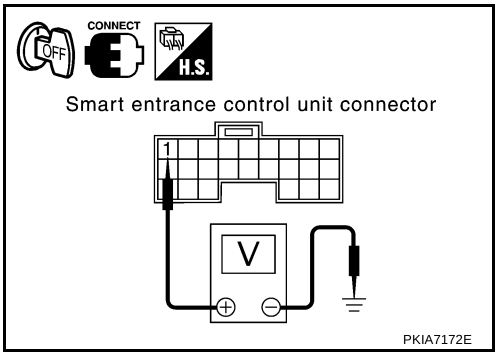
Terminals			Ignition switch position
(+)		(-)	OFF
Connector	Terminal		
M92	49	Ground	Battery voltage

OK or NG

OK >> GO TO 2.
NG >> Check harness for open or short between smart entrance control unit and fuse No. 26 (10A).

2. CHECK FRONT DOOR SWITCH (DRIVER SIDE) INPUT SIGNAL

1. Connect smart entrance control unit connector.
2. Check voltage between smart entrance control unit harness connector and ground.



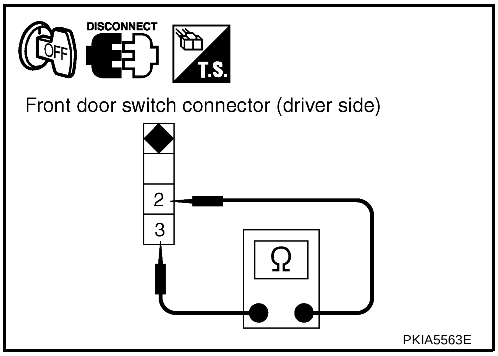
Terminals			Condition (driver door)	Voltage
(+)		(-)		
Connector	Terminal			
M90	1	Ground	Open	Approx. 0V
			Closed	Approx. 5V

OK or NG

OK >> GO TO 4.
NG >> GO TO 3.

3. CHECK FRONT DOOR SWITCH (DRIVER SIDE)

1. Disconnect front door switch connector (driver side).
2. Check continuity between front door switch (driver side) terminals.



Connector	Terminals		Condition	Continuity
B16	2	3	Pushed (door closed)	No
			Released (door open)	Yes

OK or NG

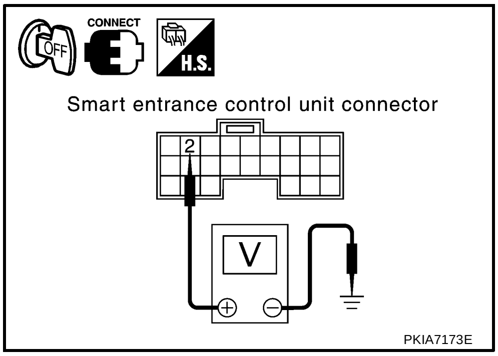
OK >> Check the following.
- Front door switch (driver side) ground circuit condition
- Harness for open or short between smart entrance control unit and front door switch (driver side)

NG >> Replace front door switch (driver side).

4. CHECK DOOR SWITCHES INPUT SIGNAL

Check voltage between smart entrance control unit harness connector and ground.

Terminals			Condition (All doors)	Voltage
(+)		(-)		
Connector	Terminal			
M90	2	Ground	Open	Approx. 0V
			Closed	Approx. 5V

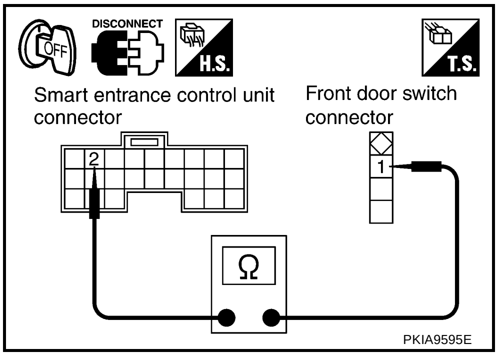


OK or NG

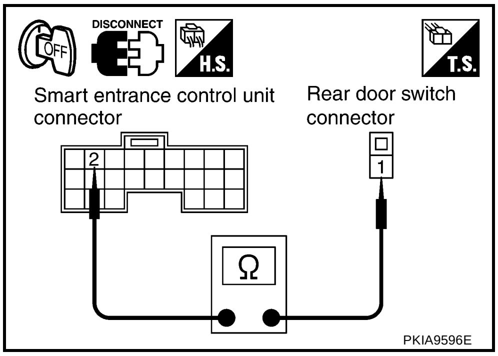
OK >> GO TO 6.
NG >> GO TO 5.

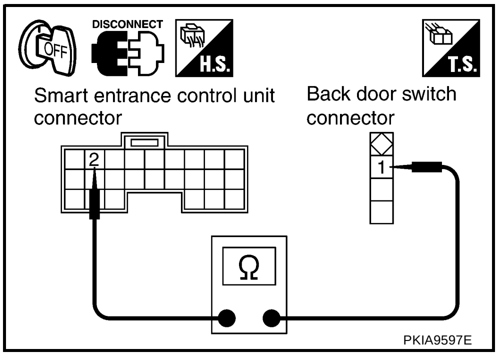
5. CHECK DOOR SWITCHES

1. Disconnect each door switch harness connector and smart entrance control unit harness connector.
2. Check continuity between each door switch terminal and smart entrance control unit terminal.



Terminals					Continuity
Smart entrance control unit		Door switch			
Connector	Terminal	Connector		Terminal	
M90	2	B16	Front door switch (driver side)	1	Yes
		B20	Rear door switch (LH)		
		B118	Front door switch (passenger side)		
		B121	Rear door switch (RH)		
		D45	Back door switch		





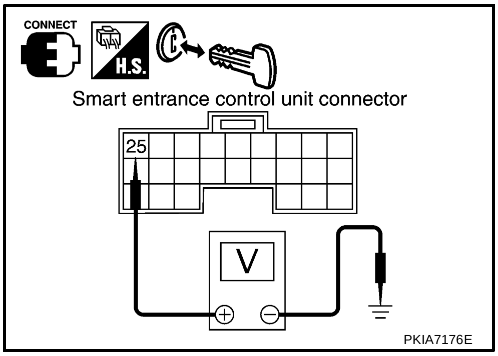
OK or NG

OK >> Check the following.
- Door switch ground condition.
- Replace door switch.

NG >> Harness for open or short between smart entrance control unit and each door switch.

6. CHECK KEY SWITCH INPUT SIGNAL

Check voltage between smart entrance control unit harness connector and ground.



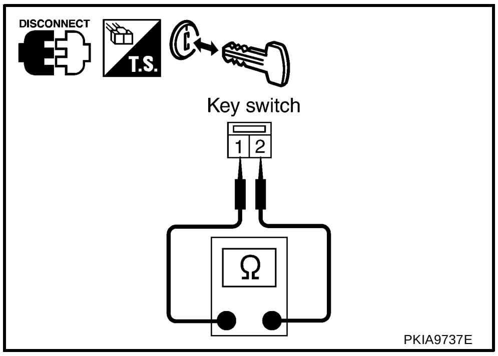
Terminals			Condition (Key switch)	Voltage
(+)		(-)		
Connector	Terminal			
M91	25	Ground	Inserted	Battery voltage
			withdrawn	Approx. 0V

OK or NG

OK >> Replace smart entrance control unit.
NG >> GO TO 7.

7. CHECK KEY SWITCH (INSERT)

1. Disconnect key switch connector.
2. Check continuity between key switch terminals.



Connector	Terminals		Condition (Key switch)	Continuity
M9	1	2	Inserted	Yes
			withdrawn	No

OK or NG

OK >> Check the following.

- 10A fuse [No.28, located in fuse block (J/B)]
- Harness for open or short between key switch and fuse
- Harness for open or short between smart entrance control unit and key switch

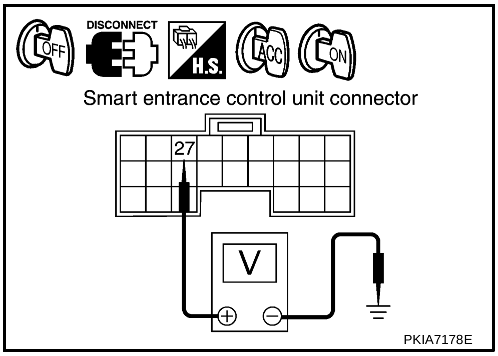
NG >> Replace key switch.

Interior Room Lamp Timer Does Not Cancel

AKS00B9J

1. CHECK IGNITION ON SIGNAL

1. Turn ignition switch OFF.
2. Disconnect smart entrance control unit connector.
3. Check voltage between smart entrance control unit harness connector and ground.



Terminals			Ignition switch position		
(+)		(-)	OFF	ACC	ON
Connector	Terminal				
M91	27	Ground	Approx. 0V	Approx. 0V	Battery voltage

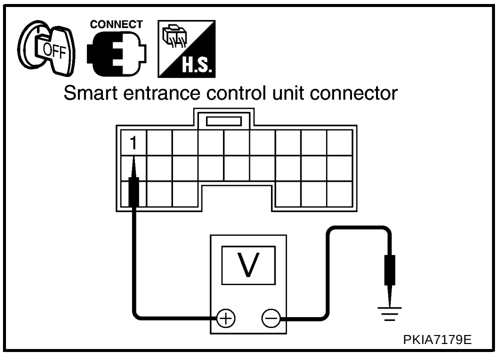
OK or NG

OK >> GO TO 2.
NG >> Check the following.

- 10A fuse [No. 5, located in fuse block (J/B)]
- Harness for open or short between smart entrance control unit and fuse

2. CHECK DOOR SWITCH INPUT SIGNAL

1. Connect smart entrance control unit connector.
2. Check voltage between smart entrance control unit harness connector and ground.



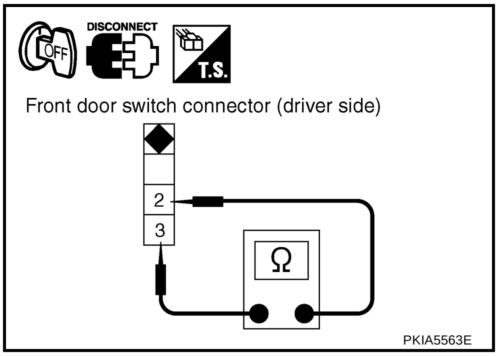
Terminals			Condition (driver door)	Voltage
(+)		(-)		
Connector	Terminal			
M90	1	Ground	Open	Approx.0V
			Closed	Approx.5V

OK or NG

OK >> Replace smart entrance control unit.
NG >> GO TO 3.

3. CHECK FRONT DOOR SWITCH

1. Disconnect front door switch (driver side) connector.
2. Check continuity between front door switch (driver side) terminals.



Connector	Terminals		Condition	Continuity
B16	2	3	Pushed (door closed)	No
			Released (door open)	Yes

OK or NG

OK >> Check the following.
- Front door switch (driver side) ground circuit condition
- Harness for open or short between smart entrance control unit and front door switch (driver side)

NG >> Replace front door switch (driver side).

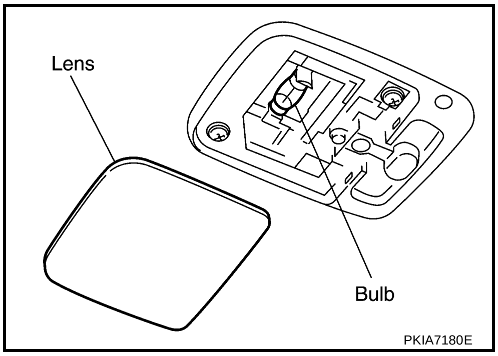
Bulb Replacement

AKS00B9K

INTERIOR ROOM LAMP

1. Insert a narrow slotted screwdriver in the cutout, and remove lens.
2. Remove bulb.
3. Installation is the reverse of removal.

Room lamp : 12V - 10W



LUGGAGE ROOM LAMP

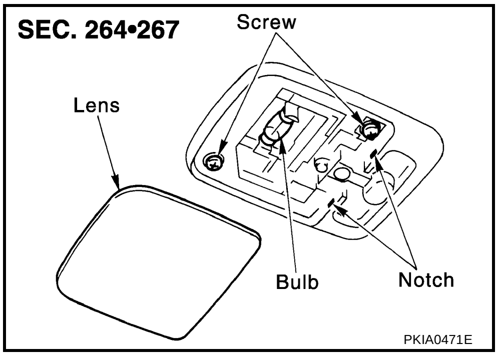
Refer to LT-63, "INTERIOR ROOM LAMP" .

Removal and Installation of Interior Room Lamp

AKS00B9L

REMOVAL

1. Insert a narrow slotted screwdriver in the cutout, and remove lens.
2. Remove room lamp mounting screws (2), and remove room lamp.
3. Disconnect interior room lamp connector.



INSTALLATION

Installation is the reverse of removal.

Removal and Installation of Luggage Room Lamp

AKS00BQC

Refer to LT-63, "Removal and Installation of Interior Room Lamp" .

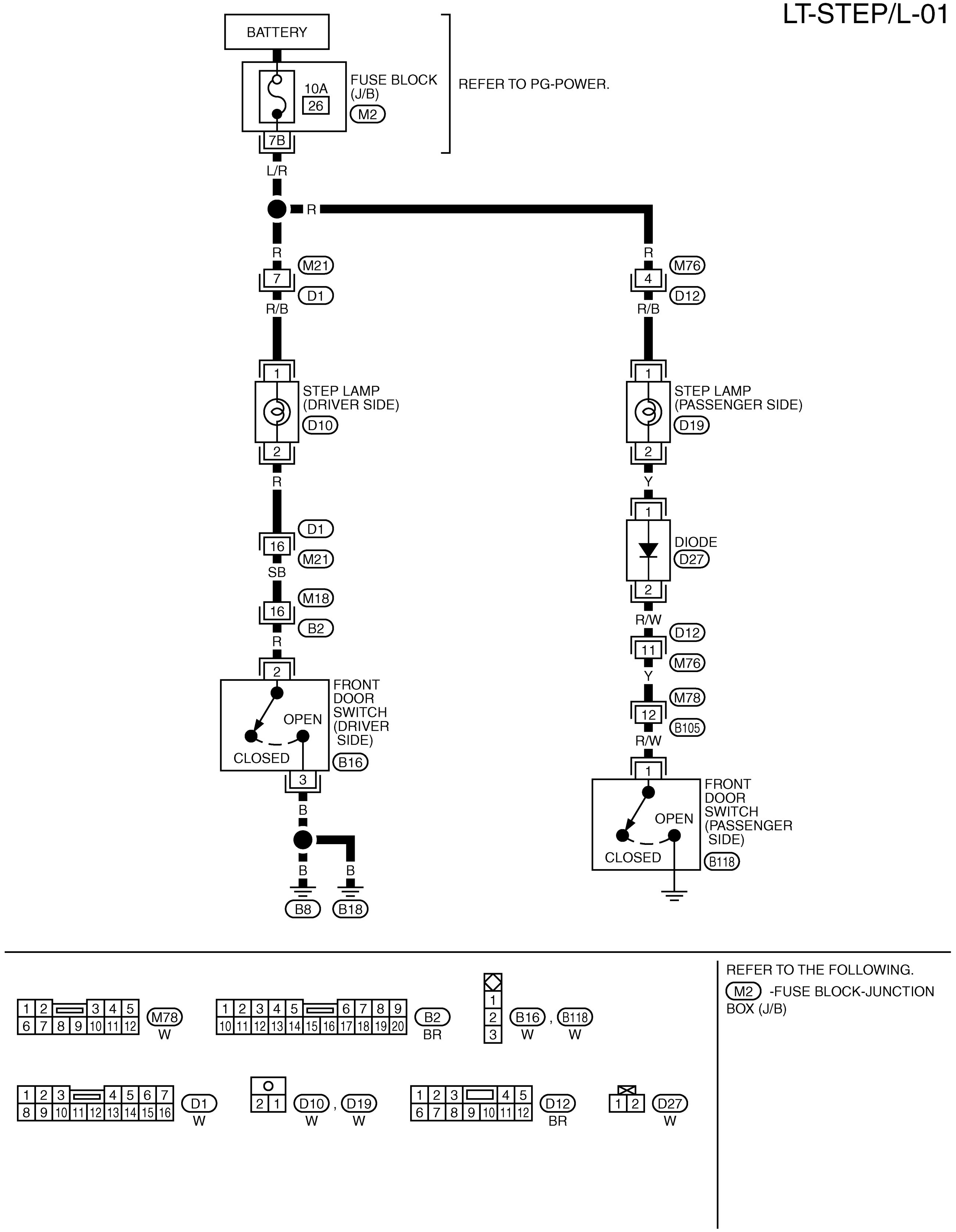
STEP LAMP

PFP:26420

Wiring Diagram — STEP/L —

AKS00B9M

LT-STEP/L-01

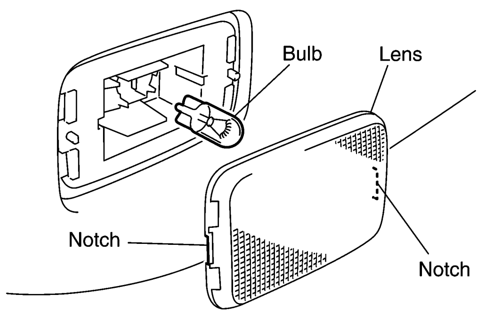


Bulb Replacement

AKS00B9N

1. Remove lens using a clip driver or a suitable tool.
2. Remove bulb.
3. Installation is the reverse of removal.

Step lamp **:12V - 2.7W**



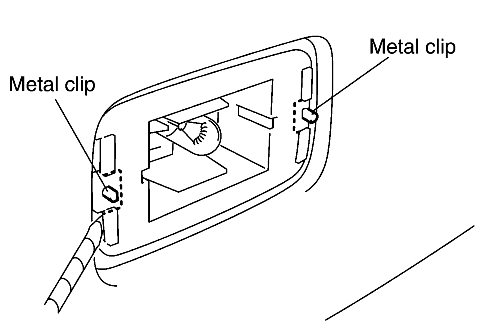
PKIA7192E

Removal and Installation

AKS00B9O

REMOVAL

1. Remove lens.
2. Using a clip driver or a suitable tool, press and remove metal clip of step lamp.
3. Disconnect step lamp connector.



PKIA7193E

INSTALLATION

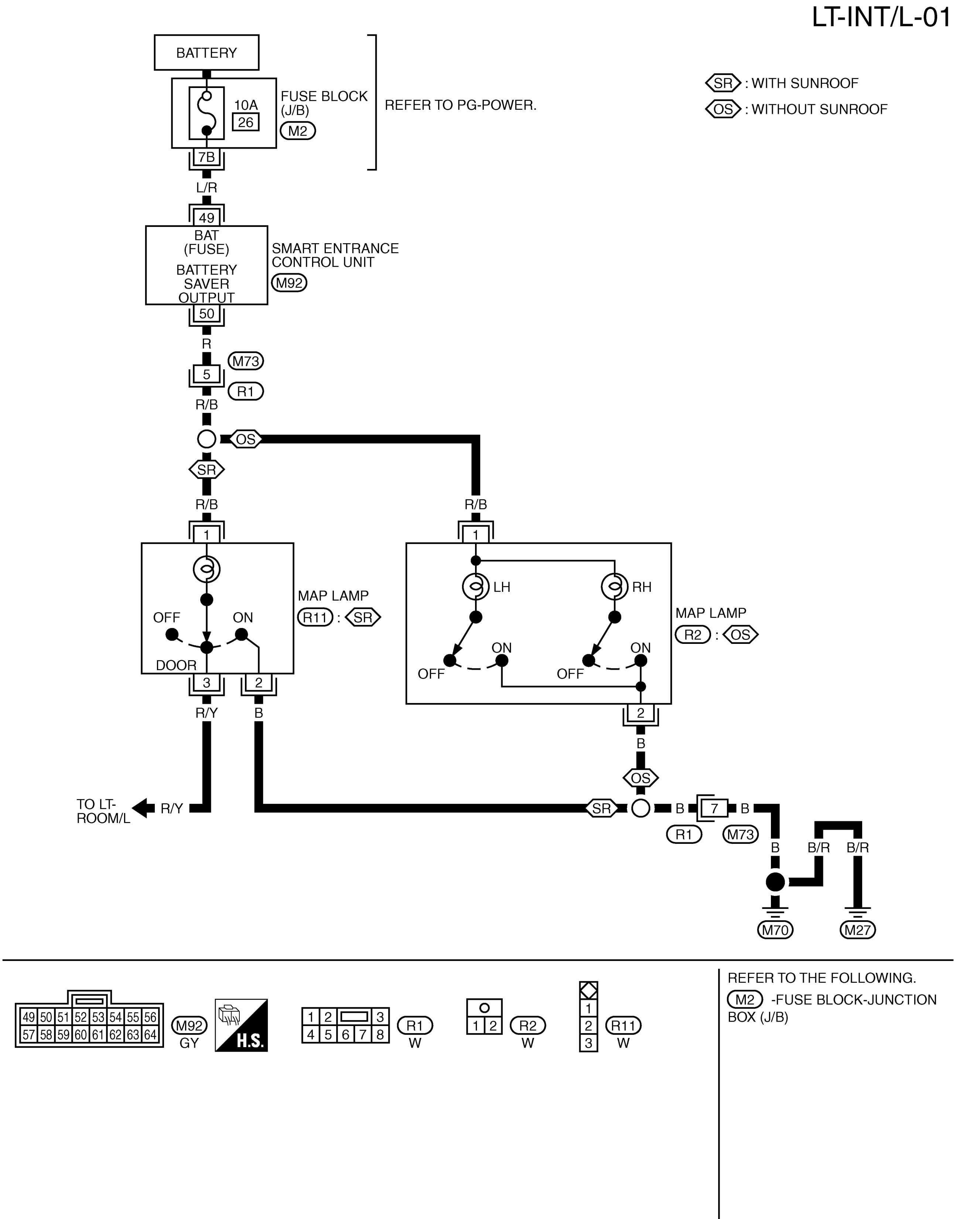
Install in the reverse order of removal.

MAP LAMP

PFP:26430

Wiring Diagram —INT/L—

AKS00B9P



TKWB0168E

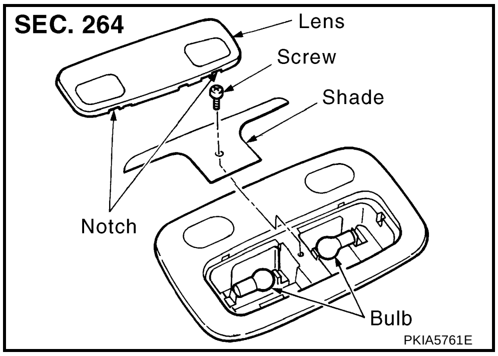
Bulb Replacement

AKS00B9Q

MAP LAMP (WITHOUT SUNROOF)

1. Remove lens using a clip driver or a suitable tool.
2. Remove shade mounting screw and remove shade from map lamp.
3. Remove bulb.
4. Installation is the reverse of removal.

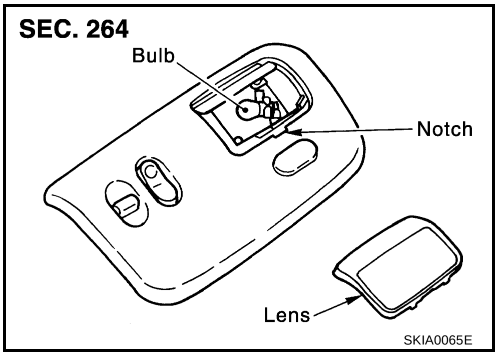
Map lamp (Without sunroof) : 12V - 8W



MAP LAMP (WITH SUNROOF)

1. Remove lens using a clip driver or a suitable tool.
2. Remove bulb.
3. Installation is the reverse of removal.

Map lamp (With sunroof) : 12V - 10W

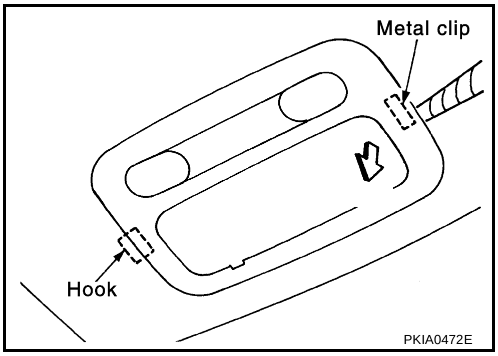


Removal and Installation of Map Lamp (Without Sunroof)

AKS00BQD

REMOVAL

1. Using a clip driver or a suitable tool, press and remove metal clip of map lamp.
2. Disconnect map lamp connector.



INSTALLATION

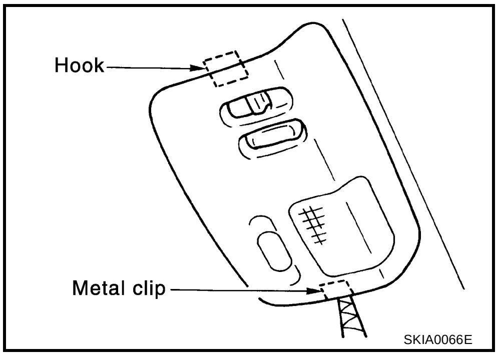
Installation is the reverse of removal.

Removal and Installation of Map Lamp (With Sunroof)

AKS00BQE

REMOVAL

1. Using a clip driver or a suitable tool, press and remove metal clip of map lamp.
2. Disconnect map lamp connector and sunroof connector.



INSTALLATION

Installation is the reverse of removal.

ILLUMINATION

PFP:27545

System Description

AKS00B98

Power is supplied at all times

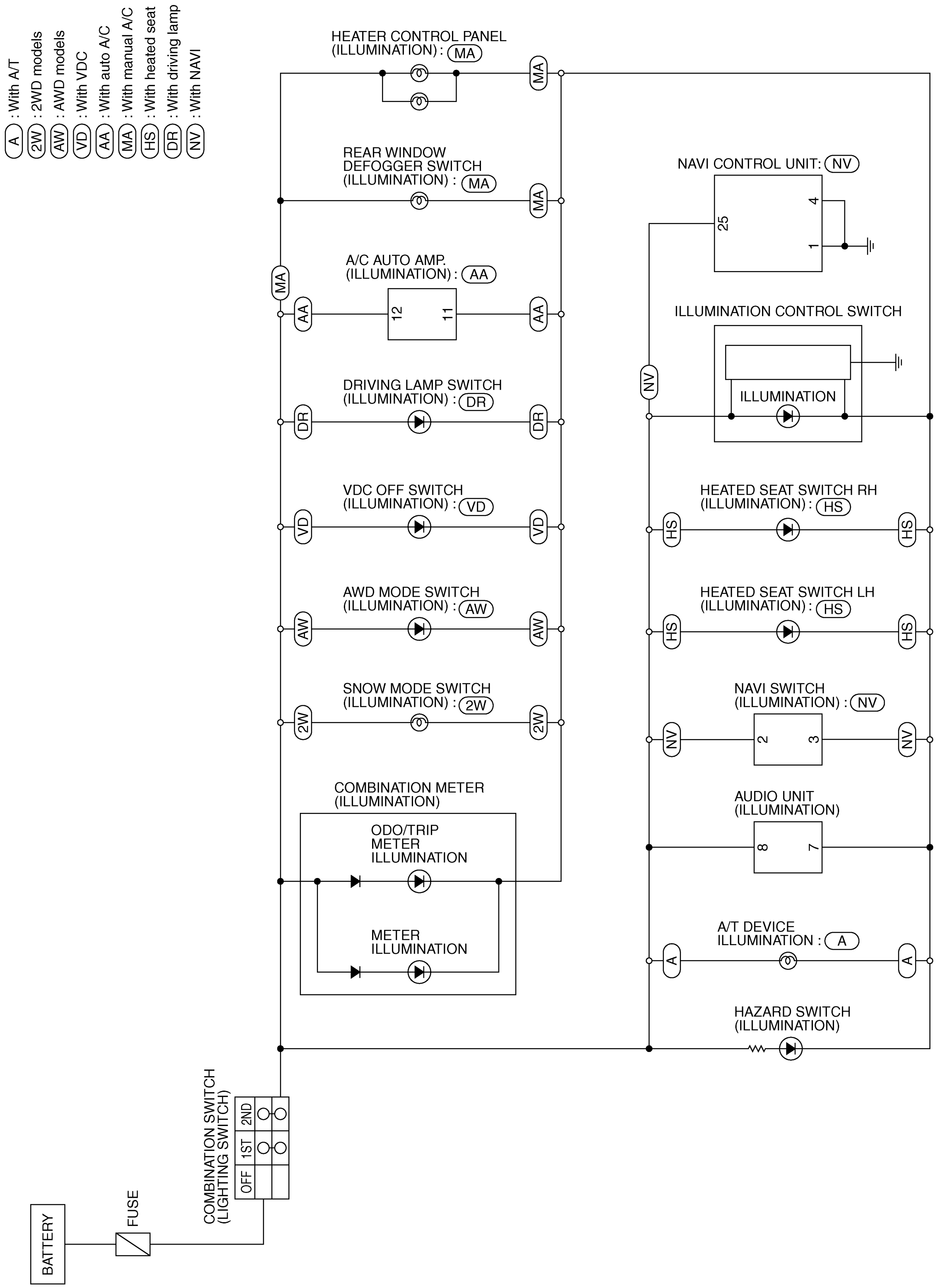
- through 10A fuse [No. 31, located in fuse and fusible link box]
- to combination switch (lighting switch) terminal 11.

The lighting switch must be in the 1ST or 2ND position for illumination.
The following chart shows the power and ground connector terminals for the components included in the illumination system.

Component	Connector No.	Power terminal	Ground terminal
Combination meter	M45	60	63
Snow mode switch (2WD models)	M122	5	6
AWD mode switch (AWD models)	M39	5	6
VDC OFF switch (with VDC)	M25	3	4
Driving lamp switch	M101	1	5
A/C auto amp. (with AUTO A/C)	M52	12	11
Rear window defogger switch (with MANUAL A/C)	M50	5	6
Heater control panel (with MANUAL A/C)	M55	2	6
Hazard switch	M51	7	8
A/T device (with A/T)	M58	3	4
Audio unit	M108	8	7
NAVI switch (with NAVI)	M113	2	3
Heated seat switch LH (with heated seat)	B212	5	6
Heated seat switch RH (with heated seat)	B213	5	6
Illumination control switch	M89	1	3
NAVI control unit (with NAVI)	M116, M117	25	1, 4

Schematic

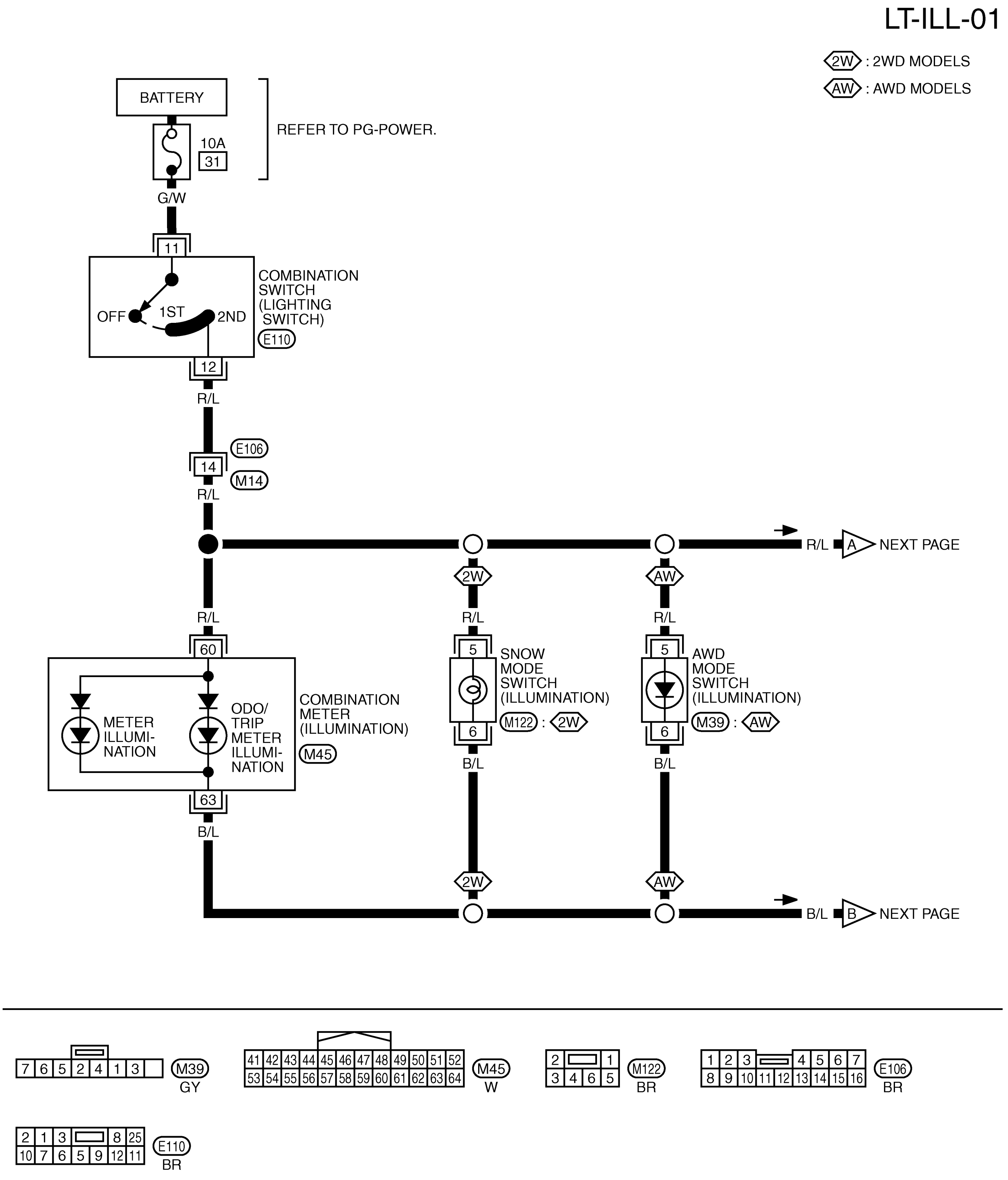
AKS00B99



TKWB2254E

Wiring Diagram -ILL-

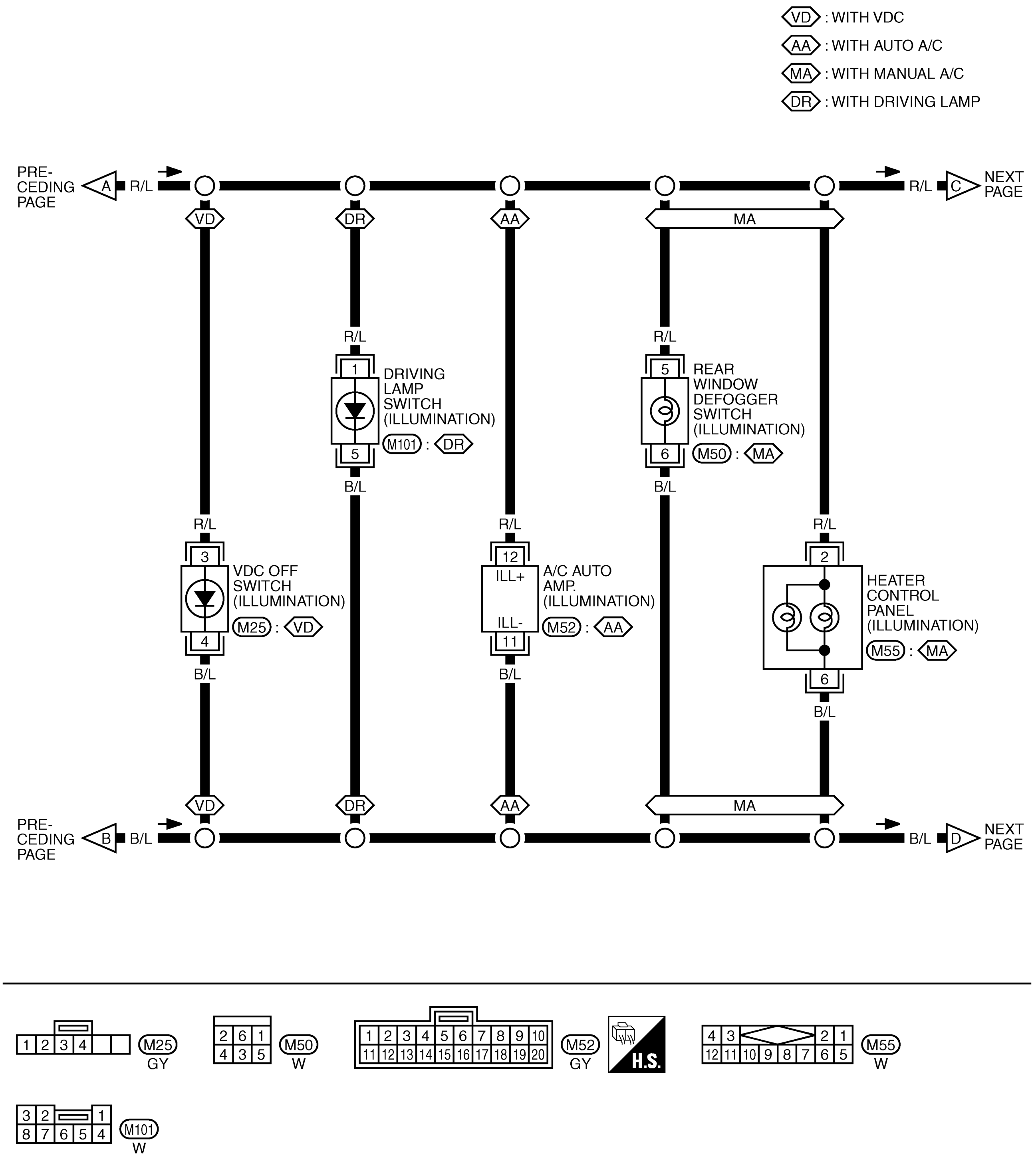
AKS00B9A



TKWB2255E

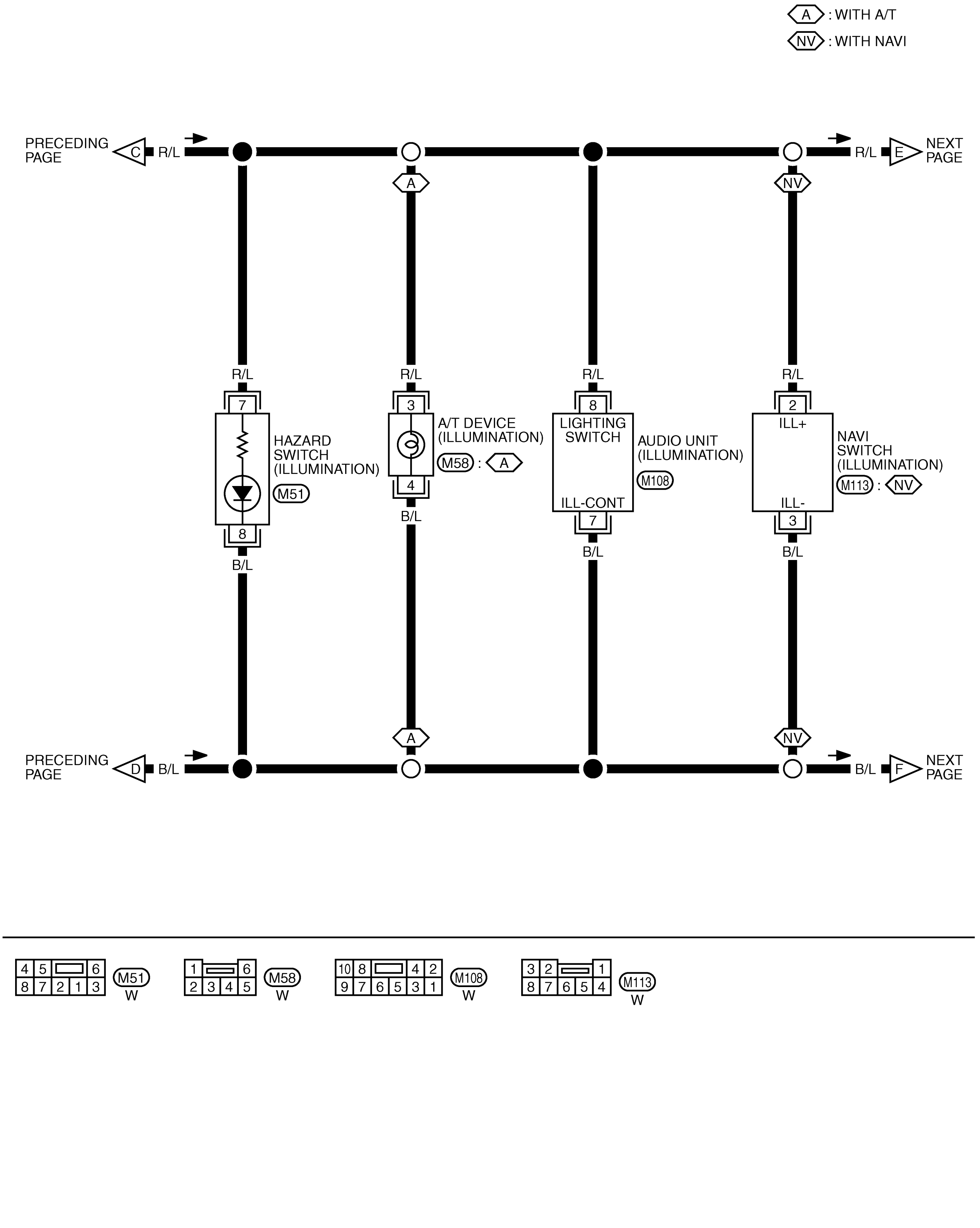
A
B
C
D
E
F
G
H
I
J
LT
L
M

LT-ILL-02

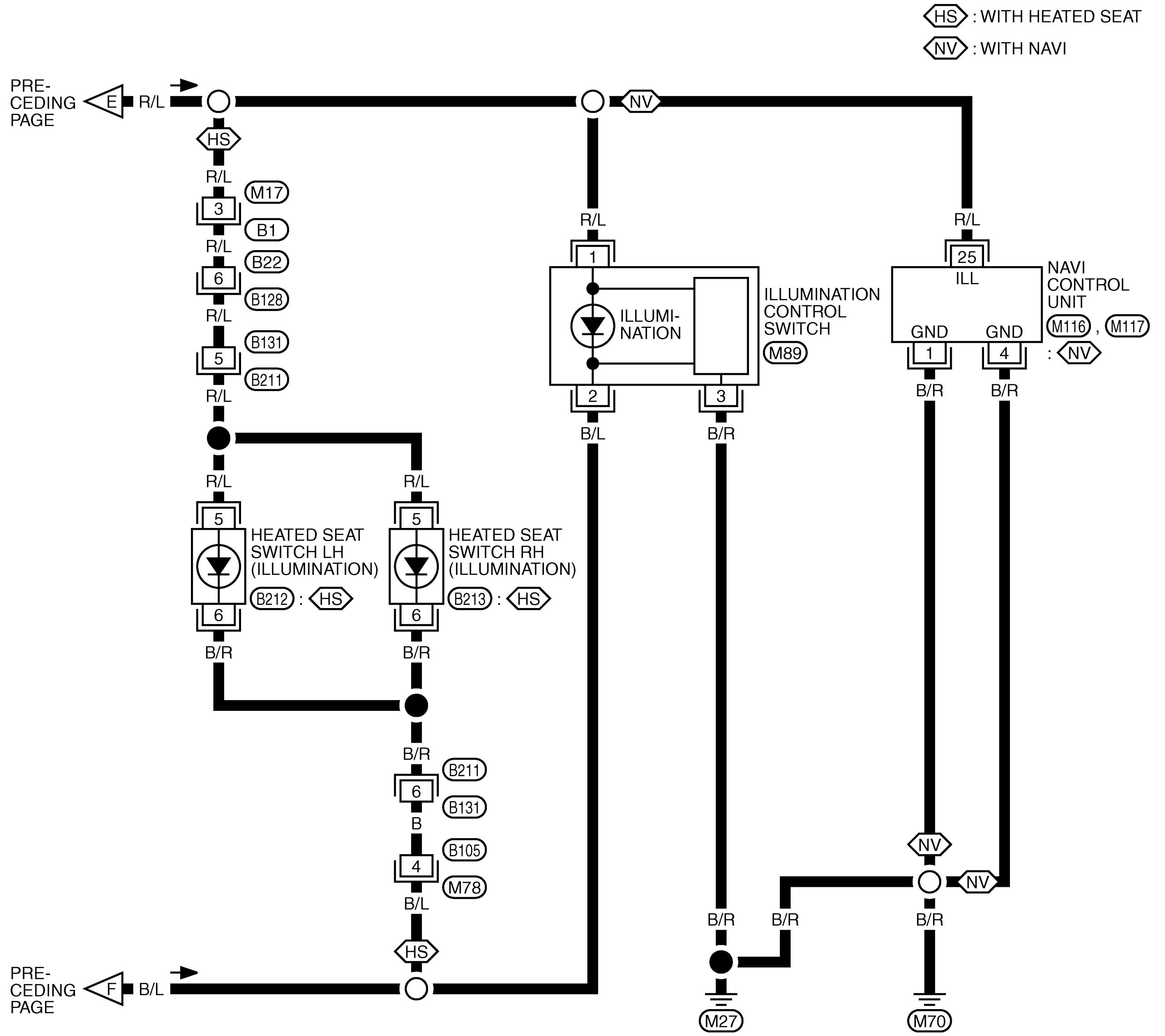


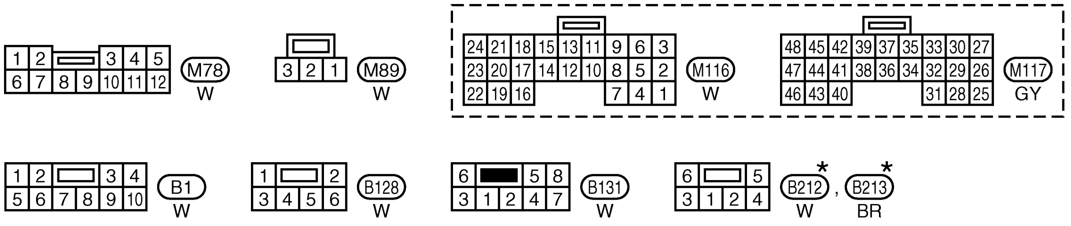
TKWB2256E

LT-ILL-03


A : WITH A/T
NV : WITH NAVI
PRECEDING PAGE
C
R/L
E
NEXT PAGE
A
NV
R/L
7
HAZARD SWITCH (ILLUMINATION)
M51
8
B/L
3
A/T DEVICE (ILLUMINATION)
M58 : A
4
8
LIGHTING SWITCH
ILL-CONT
7
AUDIO UNIT (ILLUMINATION)
M108
2
ILL+
NAVI SWITCH (ILLUMINATION)
M113 : NV
ILL-
3
D
B/L
F
M51 W
M58 W
M108 W
M113 W
TKWB2257E

LT-ILL-04





*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TKWB2258E

BULB SPECIFICATIONS

PFP:26297

Headlamp

AKS00B9S

Item		Wattage (W)
Headlamp	High/Low	60/55 (H4)
Driving lamp		65 (HIR1)

Exterior Lamp

AKS00B9T

Item		Wattage (W)
Clearance lamp		21/5 (21W: Disuse)
Front turn signal lamp		21 (amber)
Side turn signal lamp		5 (amber)
Front side marker lamp		5
Rear side marker lamp		5
Front fog lamp		55 (H11)
Rear combination lamp	Stop/tail lamp	21/5
	Turn signal lamp	21
	Back-up lamp	21
License plate lamp		5
High-mounted stop lamp		5

Interior Lamp/Illumination

AKS00B9U

Item		Wattage (W)
Interior room lamp		10
Map lamp	Without sunroof	8
	With sunroof	10
Luggage room lamp		10
Step lamp		2.7